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ABSTRACT

Focus of this manual for secondary and postsecondary guidance counselors is on the counseling of gifted and talented students about vocational education programs and their usefulness in career planning. Introductory sections address the current status of vocational education, gifted education, and guidance counseling with attention to the guidance counselor's role in an appropriate synthesis of the three. The concept of educational and occupational ladders is presented with respect to what vocational education can contribute to the gifted and talented student. Treatment is geared to the fifteen occupational clusters. A section on implementation of a guidance program for the gifted and talented in vocational preparation lists suggested counselor activities with students, school staff, vocational educators, parents, and community members. Several sections are devoted to the process of identifying the gifted. Methods of identification examined include characteristics checklists, observation techniques, standardized tests, nomination techniques, interview techniques, and use of case studies. Several special identification concerns are discussed: characteristics of older gifted youth, working with the handicapped, working with minority groups and the culturally different, sex role stereotyping, and rural-isolated students. Emphasis throughout the handbook is on the need for the gifted and talented student to be given viable alternatives in vocational/occupational training in pursuit of a life-satisfying career. A bibliography is included. (JT)

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VOCATIONAL EDUCATION

A CHALLENGING ALTERNATIVE FOR THE GIFTED AND THE TALENTED STUDENT

A MANUAL FOR GUIDANCE COUNSELORS

by

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U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FOREWORD

This manual has been developed as part of the curricular materials for a project - - THE VOCATIONAL PREPARATION OF GIFTED AND TALENTED STUDENTS IN SECONDARY AND POST SECONDARY EDUCATION in the belief that the guidance counselor is the vital link between the student and the school program. All school personnel need to respond to the unique interests, needs and goals of the gifted and talented student, but it is the counselor's role to coordinate the academic and vocational preparation which augment the student's educational program. All education is seen as a fulfillment process which leads toward life-satisfaction. Therefore, vocational education as well as academic education must relate to this goal.

Developed under Contract OEC - 300760306 for the Bureau of Occupational and Adult Education, U.S. Office of Education, the **Manual for Guidance Counselors** presents the synthesis which must occur among Vocational Education, Gifted Education and Guidance Counseling. This manual is directly related to the counselor's role in the process of this synthesis.

In search of a common base of knowledge the manual, of necessity, reviews the state of the art in each area and the dilemma in society which has prompted the need for this project. An abundance of information is available related to any single part of the total concern. The curricular search made for the preparation of the manual was limited to providing a comprehensive format for the purposes of counseling the gifted student in regard to vocational preparation only.

The framework around which the manual has been developed consists of examining:

- The current status of gifted education, vocational education, and guidance and counseling
- The identification of gifted and talented students
- The concept of educational and occupational ladders
- The opportunities for gifted and talented students in the fifteen occupational clusters
- The activities which define the role of the guidance counselor in working with the vocational educators, school staff, parents, community mentors and the gifted and talented students.

In developing this **GUIDANCE COUNSELOR'S MANUAL FOR THE VOCATIONAL PREPARATION OF GIFTED AND TALENTED STUDENTS**, the authors have made several basic assumptions which affect its usability. The authors assume that:

- The counselor has been trained and has a fundamental understanding of the guidance process.
- The counselor is aware of his/her role in the educational process and realizes the consequences of his/her action upon others.
- The counselor is knowledgeable of and is capable of planning a well-developed regular guidance program.
- The counselor is familiar with and has a working knowledge of a variety of developmental processes; beyond those provided in the regular school program.
- The counselor has a general background of understanding in tests and measurements.
- The counselor has a working knowledge of the "nature-nurture" theories of intellectual and creative processes.
- The counselor recognizes and accepts the fact that there is a wide range of individual differences among students in the developmental processes--cognitive, affective, psycho-social and physical.
- The counselor recognizes and accepts the critical fact that gifted and talented students have unique needs, interests and abilities which require differentiated programs.

Upon acceptance of these assumptions it will be possible to discuss, plan and develop a guidance program for the vocational preparation of the gifted and talented students.

The authors have brought together the information from different perspectives which support the philosophies, strategies, substance and methodology of this manual. They, in turn, have relied heavily upon input from many widely accepted authorities in their fields of expertise. Functioning as a project team has been a most rewarding experience.

The U.S. Officer of Education project officer has been Ms. Frances Hamilton, Program Specialist, Curriculum Development Branch. Dr. Dorothy Sisk, Director of Education for the Gifted and Talented, U.S. Office of Education, has been project monitor.

Dr. Bruce G. Milne
Project Director
October, 1976

TABLE OF CONTENTS

Foreword i

The Dilemma 1

The Societal Dilemma 1

The School's Dilemma 2

Concern for Educating Students for the World of Work 2

Concern Over Attracting High Caliber Students into the World of Work 2

Concern Over Handling the Gifted and Talented Student 3

The Vocational Education Dilemma 4

The Guidance and Counseling Dilemma 4

The Gifted and Talented Student's Dilemma 5

Gifted Education - - A Process of Becoming 7

Vocational Preparation - - An Expanding Concept 9

Potentials of Vocational Education 11

Types of Vocational Programs 14

The Concept of Educational and Occupational Ladders 15

What Can Vocational Education Contribute to the Gifted and Talented Student? 15

The Conclusion to Begin 16

Guidance and Counseling - - An Unfolding Process 17

Background Information 17

Standards of the Program Have Changed 18

Appropriate Setting 18

Program Goals for Pupil Personnel Services 18

Counseling the Gifted and Talented Student 20

Who Should Counsel the Gifted? 21

The Functions of the Guidance Counselor 22

Implementation of a Guidance Program for the Gifted and Talented in Vocational Preparation 24

Suggested Counselor Activities With Students 25

Suggested Counselor Activities With School Staff 25

Suggested Counselor Activities With Vocational Educators 26

Suggested Counselor Activities With Parents 26
The Use of Community Mentors 27
The Process of Guidance and Counseling 27
Identification 27
Who Are the Gifted? 28
Concluding Statement on Guidance and Counseling 29
Methods of Identification 30
Characteristics Checklists 31
Observation Techniques 33
Standardized Tests 34
Nomination Techniques 37
Interview Techniques 39
The Use of Case Studies 39
Theory vs. Practice 40
Special Concerns in Identification 41
Characteristics of Older Gifted Youth 41
Working With the Handicapped 42
Working With Minority Groups and the Culturally Different 43
Sex-Role Stereotyping 44
The Rural/Rural-Isolated Student 45
Some Conclusions on the Identification Process 45
Characteristics of Gifted and Talented Youth 46
Experience Provided by the Guidance Counselor 57
Examining the 15 Occupational Clusters 57
An Expanded View of the Clusters 59
Use of Information Systems 74
Where Do We Go From Here? 75
Special Contribution Recognitions 77
Bibliography 81

THE DILEMMA

The Societal Dilemma

This manual briefly reviews the dilemma that prompted the funding of this project - - THE VOCATIONAL PREPARATION OF GIFTED AND TALENTED STUDENTS. "Dilemma" may be viewed by some as an understatement and by others as giving the project undue importance. Regardless, the need for this project is based upon a definite cause and effect relationship.

First it is well to examine the causes. These in turn identify the participants or organizations who are affected, placing the counselor in the role of the primary change agent.

The dilemma begins with what many foresaw several decades ago - - a gap between an advancing technological society and the lack of an educational process within that society which provides skilled leaders and workers to meet the created needs. Summarized briefly, some of the cause and effect needs are:

* Business, industry, agriculture, transportation, communication and other technological fields have developed at such rapid paces that there is a need for highly trained persons with sophisticated skills.

* Maintenance of the occupational niches created by this rapid progress is overshadowed by the future, which has nebulous goals and uncertain technological needs.

* Much of what will constitute the gross national product in the year 2000 has not even been developed and, consequently, many of the jobs of the 21st century are unknown today.

With progress many concurrent problems have arisen which make further demands on the work force. These problems are:

* depletion of natural resources, many of which are irreplaceable

* accumulation of industrial waste products, some of which are detrimental to both human life and environment

* expanding industries and business causing a need for more space for their operations, traffic of goods, source of energy, and housing for their workers

* conflicting priorities between management and labor

* indiscriminate demands upon human beings to choose between progress and survival.

The resulting national concern arising from these problems, as well as many more, has caused the public to look toward its educational system for the solution. The public assumes through an educated populace we can meet any challenge.

Thus, an additional dimension of the dilemma has been created for the schools and several questions are raised:

1. What is the role of the school in educating the youth for the world of work?

2. What part does Vocational Education play in preparing workers?

3. What role does the guidance counselor have in directing the student into the work forces?

4. What does all of this mean to the student as a person?

The School's Dilemma

The American public school systems have been established and maintained under those democratic values inherent in the Declaration of Independence, the Constitution and the Bill of Rights. These values, accompanied by subsequent legislative and judicial action, have placed high priority upon the individual's right to life, liberty and the pursuit of happiness within the framework of freedom, equality and justice for all.

The public school systems have been challenged with the expectation of translating all of this so that:

- Each student has the opportunity to learn up to his/her fullest potential.
- The teaching-learning process does not discriminate against or infringe upon the rights of other students.
- The student acquires knowledges, skills and the commitment to improve the democratic quality of life for himself/herself and for others.

The educational systems in the United States, both public and private, serve a greater proportionate number of youth than any other country in the world, for a longer period of time, and in a greater variety of programs. Regardless of the emotional, physical and/or socio-economic status of the student, America's schools are expected to provide an educational experience for all children.

Within the past two decades a significant amount of legislation has caused the schools to reexamine their traditionally general and academic-oriented programs. The curricular offerings have been expanded to include both academic and occupational training. Equal opportunity legislation has reinforced and strengthened the thesis that, above all, the public schools are public. Educational rights and privileges are to be extended to all students.

The curricular offerings and related school programs, once targeted to the general school population, now must be made available to students with special needs. If necessary, the schools must provide special and differentiated programs to meet those identified needs.

Herein lies the dilemma - - identification and programming for those with exceptional needs. The "why" is clearly answered in the pluralistic values of our nation. The answer as to the "who" and the "how" is more perplexing.

Education must be all things to all people.

Concern for Educating Students for the World of Work

Little can be gained from dwelling on the issue of whether or not the schools are responsible for educating the students for the world of work. That has long since been decided, and they are responsible. Under such themes as Career Education, which emphasizes a K-14 awareness, orientation, exploration and work experience, program standards have been set and the schools must integrate them.

Most school systems provide course work in manual training, home economics, industrial arts, agriculture, mechanical drawing and a variety of business courses; all of which provide the student an opportunity to gain special training in addition to his/her academic education.

Vocational and technical education, although not new, has been added to the school program for the expressed purpose of preparing students to enter specific occupations. Depending upon the size of the school, its geographic location and the will of the decision-makers, programs may either be limited to a few occupations or provided training in a wide range of occupational clusters. In each vocational program there are a number of related programs. Most are job oriented and relate to specific skills.

What appears to be of national concern is that not all students receive the awareness, exploration, and preparation programs. Many are counseled out of them by their parents and their teachers. In numerous cases, the practical arts and vocational education are given low status in the curricular offerings. This leads to another concern for the educator.

Concern Over Attracting High Caliber Students Into the World of Work

Part of the dilemma facing industry, business and other vocational fields is the competition with the professions for the high caliber stu-

dent. It is characteristic of our society to encourage those students with high ability - - particularly intellectual and academic - - to look toward college at an early age. It is further presumed that once those students gain a college degree, they will then enter business and industry upon return to the community and use their education to fulfill the needs of a productive society.

The frustrating evidence today indicates that there is little transfer of academic learning to the manpower needs of our nation. After spending four or more years in college, most students find themselves without an employable and promotable skill. This forces them to enter the labor market at an unskilled level or to seek vocational training for better jobs. Even those who seek to enter the professions find that they must continue in college through a master's or beyond before they can be placed in financially rewarding positions.

Without dwelling on statistics, there are sufficient data to indicate that those students who take secondary and post-secondary vocational training have a much greater success rate of gaining jobs in their field of preparation than those who attend college. Manpower development figures indicate that over 65% of those who complete vocational preparation programs enter the world of work immediately upon gaining their experience/training program. Less than 20% of the college baccalaureate recipients are placed and most of these are in education and business.

Manpower training alone cannot bring about employment in many occupations, because of the need for highly specialized skills. These skills require above average students. However, our best students are guided into educational programs with limited opportunity for gainful employment while many jobs which could utilize their abilities go unfilled. There is a need for closer linkage between the elements of ability and placement.

It is believed that much can be done to relieve the problems of unemployment by informing the educational profession, parents, public and students about being employable and promotable in an advanced technological society. The responsibility for such information dissemination has been allocated to the schools in general, but in particular the guidance and counseling personnel.

There is no intent to minimize the importance of students attending college, whether for entry into the professions or for gaining a desired education in the arts and sciences, humanities or fields of technology.

However, the major intent of this manual is to cause the guidance and counseling personnel to provide the students - - gifted or not - - with sufficient information about vocational education. Once informed of the types of experience/training program and potentially satisfying jobs available in the occupational clusters, the student can then make an informed choice among the alternatives for further education.

Concern Over Handling the Gifted and Talented Student

As has already been stated, we are now experiencing a nationwide effort to equalize educational opportunities for groups of students who have been overlooked and/or slighted in regular school programs. The bulk of the attention has been directed toward the disadvantaged who come from low-income families, culturally different groups and the minority populations. Children with exceptional needs because of mental, emotional or physical disorders have also received considerable attention.

There has been, however, a resurgence of interest in education for the gifted and talented. Today's concept of giftedness has changed from the limited emphasis on intellectual and academic ability to a broader definition which includes children and youth from other ability groups who demonstrate high performance in a wide variety of activities. Because of this expanded concept of gifts and talents, there now exists a climate of growing acceptance of non-academic programs.

Identification and screening techniques are still in the developmental stages. There are active programs operating in the country with what is known, and progress in both identification of the gifted student and subsequent programming can be noted.

One generally accepted fact prevails in available research and experience related to working with the gifted and talented students: that by virtue of their outstanding abilities and their capability of high performance, they require differentiated programs and/or services beyond those provided by the regular school program. Great talent can be a handicap in an educational system designed for the average. Unless their

unique interests, needs and life goals are accepted and the curriculum modified, these students will have frustrating experiences in school and in life.

In all probability, from three to five percent of the school's population of students will fall into some of the multiple gifted and talented areas. Initially, the guidance and counseling personnel will be given the responsibility of providing leadership in identifying, and programming these students.

The Vocational Education Dilemma

Within the past few decades vocational educators have been faced with increased demands from labor, business and industry for more skilled workers. In an attempt to meet these demands, greater federal, state and local resources have been allocated to expand the vocational and technical training programs. Throughout the nation there has been developed a vast network of secondary and post-secondary training units. All have some designated programs which relate directly to preparing workers for specific occupational clusters.

The typical layman, and even most educators, are basically uninformed as to the breadth of the expansion in vocational-technical education. Still victims of an unwarranted low image among educational institutions, the vo-tech schools are usually overlooked as a desirable alternative to the degree-granting colleges and universities for above average students. As a result most students go through school without an opportunity to explore life-satisfying occupations through vocational education pathways.

Largely viewed as an extension of the school's industrial arts program or business classes, the vast majority of the public remain uninformed as to the dimensions of the post-secondary vocational institutions. Possibly the greatest value in the preparation of this manual will be that of informing the counselors and gifted education program of what is the state of the art in vocational education.

The dilemma in vocational education could be best summarized as that of being under-exposed in the public media. Vocational education is a dynamic force in America's manpower development, and a better informed public and an improved image must be placed as high priority items if vocational education is to reach its full potential.

Vocational-technical education programs and courses are offered in a variety of settings. They may be offered totally within the school or or through a combination of in-school and on-the-job experiences. Most in-school activities consist of short units that briefly cover basic content and limited exposure to the materials and equipment of the occupational program. Following these exploratory activities the vocational preparation begins with emphasis on specific job skills.

In working with the gifted, as in any other program in special education, there must be adjustments in both teaching and experience programs. Individualization, with emphasis on differentiation to meet the unique interests and needs, plus provisions for freedom and time will have to be examined in great detail.

Given students who are in the process of becoming the nation's leaders, inventors, designers, and developers, the vocational educator will be faced with re-examination of exit-level skills in light of that process of becoming.

The Guidance and Counseling Dilemma

It is apparent that guidance has returned to its original purpose - - that of directing persons into the occupations. Guidance in our schools arose out of the demands of an emerging industrial society. The charge to the counselor was to inform the students of the need for skilled workers and to encourage them to prepare for a future in the world of work.

A second perception is that of seeking the outstanding student in periods of national stress. For example, during the critical early years of World War II, American armed forces found themselves short of trained personnel. Officer Candidate Schools were established and the most capable service men were given "crash courses" in academic subjects, military strategies, specific work skills and leadership. From these "ninety-day wonders" came an immediate force who were to perform functions equivalent to the graduates of the military academies at West Point and Annapolis.

For those persons too young to remember, the "Ninety-Day Wonder" appellation was given to servicemen who were taken out of the ranks and given ninety-days (or more) of intensive officers training. Rigorous instruction and field experiences were given and only a few of those selected actually survived the periodic "cuts." Of those who did make it, many became excellent officers and distinguished themselves in fulfilling their much needed leadership roles. There were exceptions, of course, but no value judgment has been intended here.

A more recent example in our reactive society was the massive nationwide response known as the "Sputnik craze." Faced with the likely possibility that the Russians would outstrip America in the space race, a concerted effort was made to identify the outstanding students. Once identified, these students were given concentrated training in mathematics, aeronautics, related sciences and space technology. Again, those given special educational opportunities and training were to work side-by-side with those who had come up through the traditional Ph.D. programs.

The importance of relating this bit of history in this manual is that in both of these crash programs, as in many other similar situations, the guidance counselors were given the responsibility for identification and advisement. Several fringe benefits have accompanied many of the reactive movements:

* Government funds promoted the training of more guidance counselors.
* Funded research provided the incentive to develop better tests of intelligence, aptitudes and abilities.
* Large populations were given the tests developed which provided normative data.
* The art of academic and intellectual screening were greatly refined.
* Trained researchers in identification techniques transferred their skills to other areas of concerns, such as attitudes, interests and measures of creativity.

Guidance and counseling functions in the schools have become so diverse that the term "pupil personnel services" has emerged as an alternate and more inclusive title. These persons are charged with the non-instructional and non-administrative personnel services to the pupil -- guidance, health and psychological services, social work, attendance concerns and, of course, counseling. With an increased emphasis on the disadvantaged, particularly those classified as exceptional, more specialists have been added to pupil personnel staff. They give the expertise needed to focus on specific individual needs.

The crux of the dilemma facing the pupil personnel service division of any school is that of an ever-expanding role. In addition to the many diagnostic and prescriptive activities, counselors deal with guiding the students in their present and future educational program.

The government, armed forces, business, industry and labor organizations frequently cite in their literature, "Visit with your school counselor and talk about the availability of vocational-technical training." They further instruct the student to discuss the employment opportunities, and sources of more information. This places a tremendous responsibility on the counselor.

A Jewish proverb says, "God cannot be everywhere and therefore he made mothers." We could paraphrase this and say, "the school's instructional program cannot be all things to all students and therefore it made guidance counselors." Their responsibilities are over-whelming.

The Gifted and Talented Student's Dilemma

At an early age children are asked repeatedly, "What are you going to be when you grow up?" For the gifted and talented student, this is a particularly difficult question. Empirical research indicates that those youngsters with outstanding abilities and high performance potentials have a more difficult time deciding on a life-career goal. As the youths struggle toward maturity, they become more aware of the many options open to them. The search for their missions in life is complicated by intense interests in things often unrelated to the educational programs of the school but which could become part of many occupational pursuits. As with all people, the gifted student is faced with the realities of choosing between or among interests, goals and a career that will be poten-

tially satisfying. Earning a living must be a practical goal in any student's life. Ideally, a person should be able to blend this with altruistic values that give meaning to his/her sense of mission or career goals.

The mammoth concern in seeking an occupational ladder is that of being forced to make early decisions which dictate the direction the educational ladder will lead. The student is faced with the choices of:

1. working and then going to school
2. working while going to school
3. somehow going to school and then seeking work

For those who lack adequate financial support through scholarships and loans, the family has to assume the cost burden. There are many gifted students who are unable to pursue their chosen career because of a lack of monetary support.

Ultimately, the gifted and talented student is faced with the dilemma of trying to maintain his/her uniqueness in a highly structured society. Again, it is a matter of degree or intensity of the desire that sets apart the gifted from the peer group. But, as with most students they want to:

- maintain a sense of identity
- maintain a sense of autonomy
- maintain a sense of integrity
- be allowed to do their thing and feel a sense of accomplishment.

The realities of "what is" versus "what ought to be" somewhat stifles the enthusiastic pursuit of excellence. Gifted students are generally well experienced in getting unequal treatment in an equal society by the time they seek a career. Being held in a lock-step educational program of studies and training experiences has a conditioning effect - - with exceptions, of course. As the student looks forward to the world of work through vocational education, there is a natural fear of being locked in. Beyond the training level are a series of similar barriers to fulfilling one's potential:

- Acceptance into unions
- Requirements of lengthy apprenticeships
- Rigid senority systems in business and industry
- "Time in grade" requirements which are unrelated to competencies
- "Equal pay for equal work" salary schedules.

Although many industrial and business groups have developed alternative career ladders and incentive programs, most of the occupational clusters make little allowance for differentiated staffing because of outstanding ability and high performance.

Unless the society, the schools and the occupational groups are willing to readjust the system to provide for the recruiting, training, placement and advancement of the gifted and talented students, it is of little value to counsel these students into vocational fields. In effect, they are being told, "If you want to be good, you have to be good for nothing."

GIFTED EDUCATION — A PROCESS OF BECOMING

Although gifted education has been of concern throughout the 20th century, some writers date its first formal inception in the 1930's. Students with high intelligence and outstanding academic success were placed in special groups. Those identified and grouped were given accelerated programs in science, mathematics, foreign languages, English, and social studies. From these programs students were given advanced placement in several major colleges and universities.

Throughout the 1930's and 40's many isolated and some organized efforts were made to identify and program the exceptional, bright, most capable, ablest or highly gifted students. Although some of the programs were highly successful, the concept of gifted education did not attract nation-wide attention until the 1950's. The "Sputnik Craze" was the first organized gifted education movement. It too failed to last, somewhat because of the lack of financial support.

Many believe, however, that the real reason for the failure of the attempts to bring about public interest in gifted education has been the limitations in the definition of giftedness. High intelligence, as measured by I.Q. tests, and academic success, as measured by achievement tests, have been the limiting factors. Too many students with other outstanding abilities have been screened out and many are unidentified.

The real impetus for gifted and talented education was established through legislative activities occurring during the late 1960's and expansion of the definition of giftedness. Congressional activities added an Elementary and Secondary Education Amendment in 1969 (Public Law 91-230, Sec. 806) which included "Provisions Related to Gifted and Talented Children." Specifically, this incentive sought to draw federal support for the gifted and talented student.

* Studies were conducted into the specific needs of gifted and talented students.

* Support was given to research and development in education of the gifted.

* A broader based definition of the gifted and talented student was gained.

* Programs were developed to meet those identified needs.

With federal and private support a concerted effort has been made to bring about a nation-wide awareness and acceptance of gifted education. In the early 1970's the Office of Gifted and Talented (OGT) was established by the Commission of Education. Through many coordinated efforts funds were allocated for national projects to train leaders, support curricula development and institute pilot programs.

One of the most significant influences in bringing gifted education into national focus has been the work of the National/State Leadership Training Institute on the Gifted and Talented. Through the efforts of N/S LTI, each state now has trained leaders in gifted education. Many of these leaders have actively pursued gifted and talented education from many different areas of expertise - - research, curriculum building, programming and extending awareness activities. Much progress has been made in the past few years. Other national organizations serving to enhance the education of the gifted and talented are:

THE ASSOCIATION FOR THE GIFTED (TAG) - - A division of the Council for Exceptional Children since 1968, TAG plays a major part in helping both professionals and parents deal more effectively with the gifted and talented.

The Association for the Gifted
The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
(703) 620-3660

NATIONAL ASSOCIATION FOR GIFTED CHILDREN (NAGC) - - A professional organization with membership open to parents, the NAGC conducts training and consultant services to schools.

National Association for Gifted Children
R. R. 5
Box 630 - A
Hot Springs, Arkansas 71901

GIFTED CHILD RESEARCH INSTITUTE - - This organization conducts conferences, publishes newsletters, and disseminates papers related to the education of the gifted and talented.

Gifted Children Research Institute
Suite 4 - W
300 West 55th Street
New York, New York 10019
(212) 541-7059 and 957-5145

THE AMERICAN ASSOCIATION FOR THE GIFTED - - A small group of professional presonnel meet annually to discuss the various problems facing the education of the gifted.

The American Association for the Gifted
15 Gramercy Park
New York, New York 10003
(212) 473-4266

NATIONAL ASSOCIATION FOR CREATIVE CHILDREN AND ADULTS - - An organization seeking to aid in the development of the creative potential of gifted and talented children, it also fosters closer relationships between the creative young and creative adults.

National Association for Creative
Children and Adults
8080 Spring Valley Drive
Cincinnati, Ohio 45236
(513) 631-1777

THE COUNCIL OF STATE DIRECTORS OF PROGRAMS FOR THE GIFTED - - This is a professional organization of educators and administrators of programs for the gifted and talented.

The Council of State Directors of Programs for the
Gifted
Florida State Department of Education
319 Knott Building
Tallahassee, Flordia 32304
(904) 599-5807

THE ERIC CLEARINGHOUSE ON HANDICAPPED AND GIFTED CHILDREN - - This group is operated by the Council for Exceptional Children (CED) and functions as an integral part of the national network of sixteen ERIC (Education Resource Information Centers) by preparing and disseminating information in the field of gifted education.

The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

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Through the effort of many dedicated individuals, gifted education now has been extended to many "practical" programs in the nation and in each state. The attempt of this project to bring the gifted and talented student into vocational education is only part of the total effort. Much more needs to be done before there is a full public awareness and acceptance of the need for educating the gifted and talented students to their fullest potentials.

VOCATIONAL PREPARATION — AN EXPANDING CONCEPT

The history of vocational education is the history of man's relationship with the world of work. The term vocational education came into existence about the beginning of this century; but the actual practice of training the youths to work in their society has been in effect since the beginning of time.

Vocational education received its first major thrust following the passage of the Smith-Hughes Act in 1917. For many years the vocational offerings were found primarily at the high school level. Then the late 1950's and early 1960's brought about a change with the increased emphasis upon vocational education at the 13th and 14th years (post-secondary).

Legislation during the 60's and 70's has made sweeping changes in the fundamental structure of vocational education in secondary and post-secondary training. The intent of Congress was to provide vocational education for all persons and all occupations, except those which the Commissioner of Education identified as professional occupations or as requiring a baccalaureate or higher degree.

The central purpose of the Vocational Act of 1963 was the authorization for federal grants to the states for the following purposes:

- To assist states in maintaining, extending, and improving existing programs of vocational education
- To develop new progress of vocational education
- To provide part-time employment for youths who need such employment in order to continue their vocational training on a full-time basis
- To provide instruction for persons of ALL ages in ALL communities to have ready access to vocational training or retraining which is of high quality, realistic in relation to employment, and suited to the needs, interests, and abilities of the persons concerned. Such persons were identified: (a) those in high school, (b) those having completed or discontinued formal education and preparing to enter the labor market, (c) those already in the labor market and needing to upgrade their skills or learn new ones, and (d) those with educational handicaps.

The Vocational Education Amendments of 1968 define vocational education as follows:

"The term 'vocational education' means vocational or technical training or retraining which is given in schools or classes (including field or laboratory work and remedial or related academic and technical instruction incident thereto) under public supervision and control or under contract with a State board or local educational agency and is conducted as part of a program designed to prepare individuals for gainful employment as semiskilled or skilled workers or technicians or sub-professionals in recognized occupations and in new and emerging occupations or to prepare individuals for enrollment in advanced technical education programs, but excluding any program to prepare individuals for employment in occupations which the Commissioner determines, and specifies by regulation, to be generally considered professional or which requires a baccalaureate or higher degree; and such term includes vocational guidance and counseling (individually or through group instruction) in connection with such training or for the purpose of facilitating occupational choices; instruction related to the occupation of occupations for which the students are in training or instruction necessary for students to benefit from such training; job placement . . ."

The levels in our educational system where vocational education is offered are also given emphasis through the definition of the term "area vocational school" in the Vocational Education Amendments of 1968.

"The term 'area vocational education school' means -

(A) a specialized high school used exclusively or principally for the provision of

vocational education to persons who are available for study in preparation for entering the labor market, or

(B) the department of a high school exclusively or principally used for providing vocational education is no less than five different occupational fields to persons who are available for study in preparation for entering the labor market, or

(C) a technical or vocational school used exclusively or principally for the provision of vocational education to persons who have completed or left high school and who are available for study in preparation for entering the labor market, or

(D) the department or division of a junior college or community college or university which provides vocational education in no less than five different occupational fields, under the supervision of the State Board, leading to immediate employment but not necessarily leading to a baccalaureate degree . . ."

Although vocational education need not and should not be limited by the scope of the Federal Legislation, Federal Legislation has significantly influenced the development of vocational education in all states and territories.

The central theme throughout all vocational education is that it "prepares the student for employment in a specific occupation." The emphasis is upon the skills and knowledge which the student will need to gain employment and to advance within the occupation.

Typically, the vocational education program contains little if any of the "liberal arts" type of preparation common to baccalaureate degree preparatory programs. The vocational program concept strives to prepare the student for employment in a minimal amount of time. Once he/she is employed, the student may pursue further vocational training, adult education and/or college courses giving an academic or occupational education that will help to enrich his/her life style.

The urgency of vocational education to prepare students for employment in a relatively short period of time has been emphasized by programs funded through the Manpower Development and Training Act and the Comprehensive Employment and Training Act. Through these acts instructional programs have been designed to prepare the student for employment in 12 months or less.

Vocational education strives to present an educational program that utilizes equipment and facilities that duplicate those used by business and industry in the respective occupation. Likewise, the instructional faculty should possess work experience in the occupational area being taught. Vocational education is an applied, practical educational program.

One of the dilemmas faced by vocational education is that in some occupations it is difficult for the student to gain employment beyond the entry level and commensurate with preparation. Likewsie, seniority systems tend to curtail the advancement of the more capable graduates. These factors become even more significant as vocational education works with the gifted and talented student.

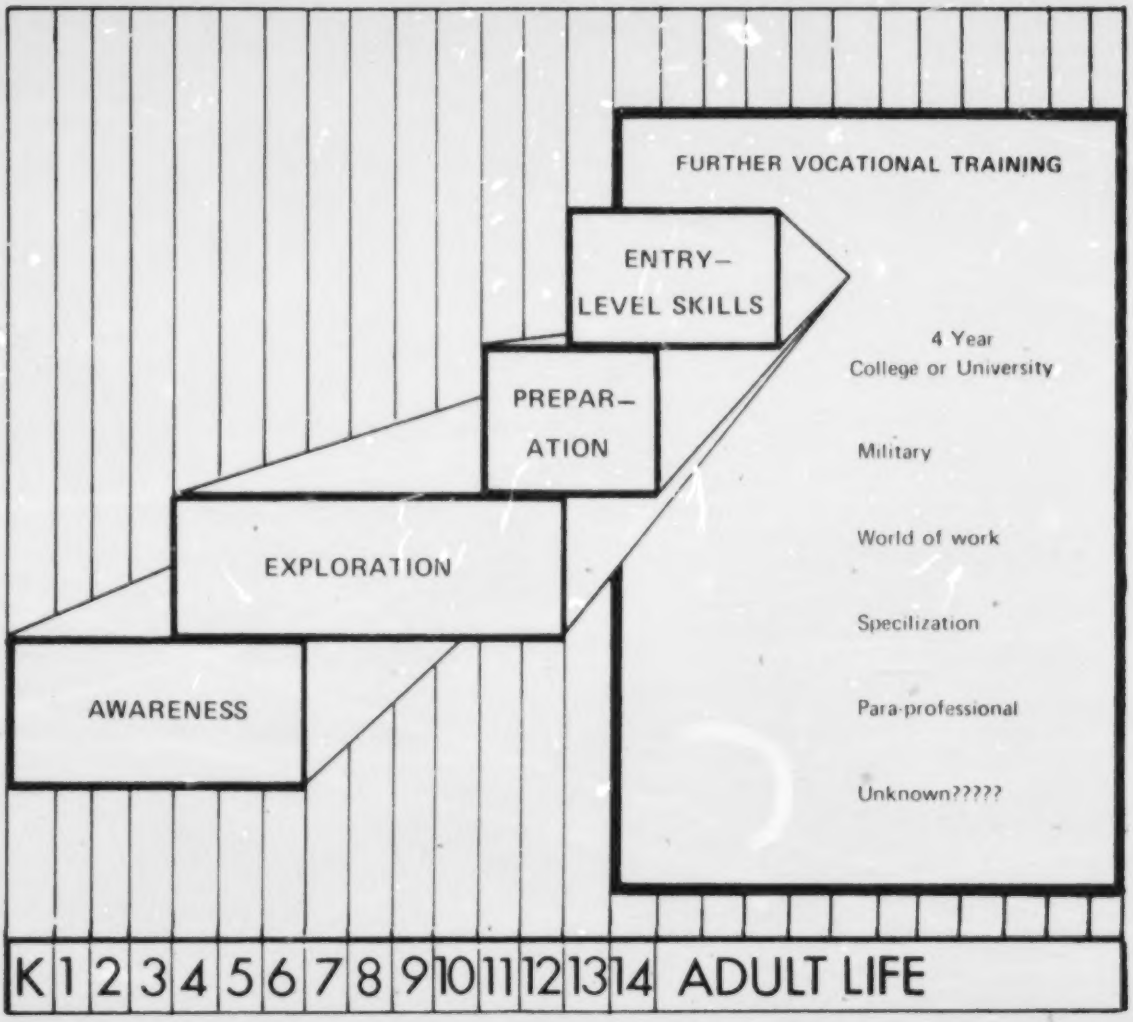
The 1976 Education Amendments have not been finalized, but upon implementation will add new dimensions to vocational education. A preliminary review indicates that the gifted and talented students have not been identified as a target group. However, nothing prevents vocational education from serving the gifted and talented.

The late 1960's and early 1970's brought forth the Career Education concept. It is defined by Dr. Ken Hoyt (1972) as: "the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their personal value system, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual."

Career education is a concept that permeates all of education. Emphasis is placed upon career awareness during grades K-6, career exploration during grades 7-10 and career preparation during grades 11 and above. Vocational education contributes to the career preparation phase of the career education concept. Thus, all of vocational education could be classified as career education, but not all career education is vocational education.

The following diagram illustrates the potentials in vocational education. It is important to realize that overlapping and re-cycling can and probably does occur.

POTENTIALS OF VOCATIONAL EDUCATION



The terms awareness, exploration and preparation are appropriate in illustrating the potentials of vocational education.

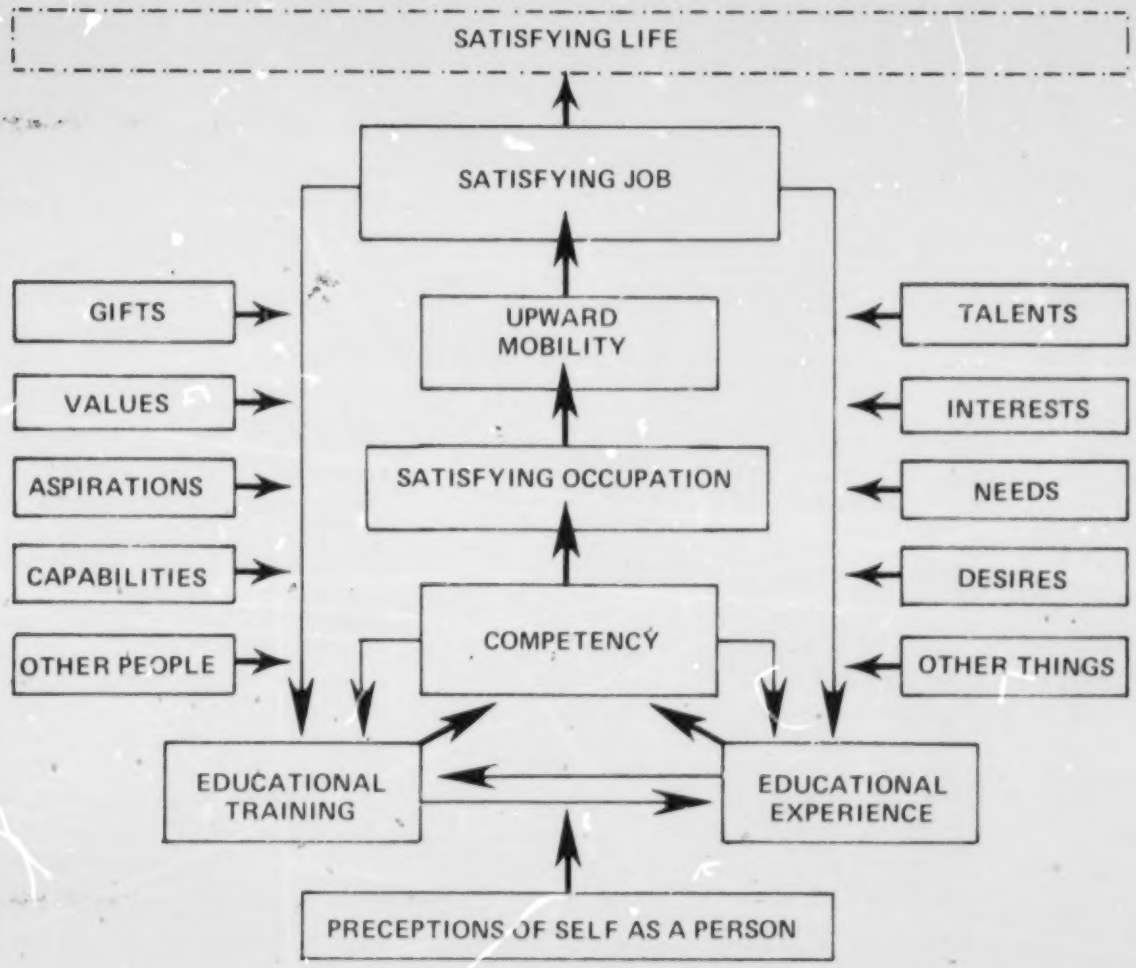
Awareness – is the stage in which experiences must be provided to enable the gifted and talented to learn about themselves, their relationship to others and the relevancy and dignity of work.

Exploration – delves into detailed exploration of the occupational clusters, including necessary education and training for entry level participation.

Preparation – is that period that commitments, assessments and implementation of plans are begun. Basic skills are strengthened and courses that are prerequisite for future education and/or advancement within the cluster are pursued.

The Educational-Occupational Interaction Model presented here depicts a satisfying life as the end result of finding a satisfying job through upward mobility in a satisfying occupation. From the perceptions of the self as a person, one combines educational training and educational experiences for the purposes of gaining competency. Gifts, talents, values, interests and the other factors contribute to and help define the satisfying life.

EDUCATIONAL – OCCUPATIONAL INTERACTION MODEL



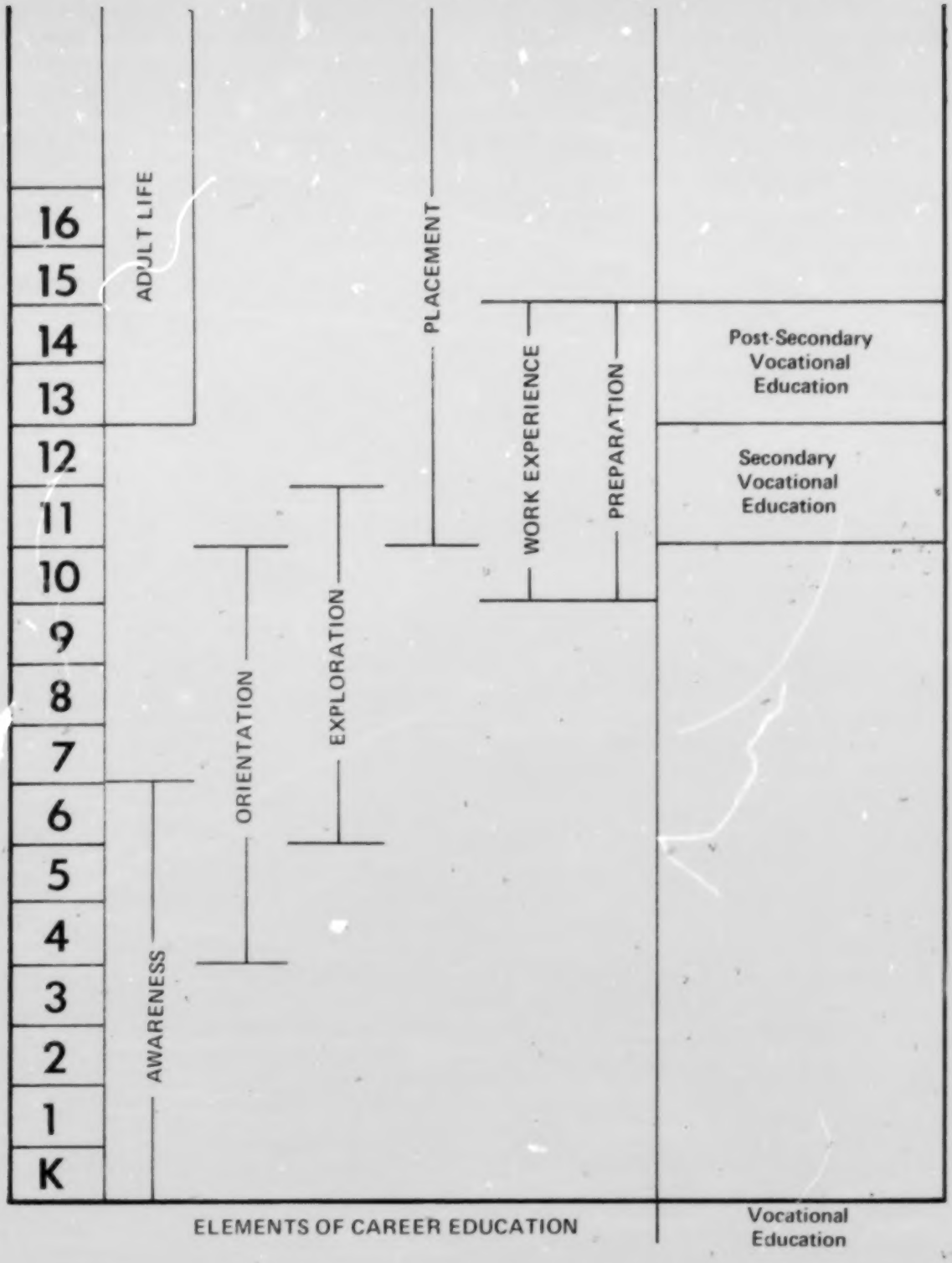
In an educational-occupational interactive model it is essential to provide for retraining, upgrading and updating one's educational training educational experiences and competencies. Provisions must also be made for the person to reexamine his/her self-perceptions.

- Educational Training consists of all the cognitive, affective and psychomotor skills and abilities acquired through the never ending teaching-learning process.
- Educational Experience consists of all of the direct learning which is acquired through evaluative doing.
- Competency consists of the synthesis of what one knows and what one can do effectively and efficiently.

In order to further clarify the educational and occupational ladder concept, an examination of Vocational Preparation in relationship to Career Education should be made. One of the fundamental concepts of Career Education is the blending of academic and occupational education. Both are an integral part of the students' total career education and augment each other in the developing of competencies needed to earn a living and acquire positive attitudes toward the value of all work. Thus, education and career education are synonymous terms.

The following diagram illustrates the career development concept and indicates where Vocational Education fits into the total pattern.

CAREER EDUCATION MODEL



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The developmental stages of awareness, orientation, exploration and preparation which are depicted in the educational and occupational ladder concept may continue throughout the individuals' lives as they continually discover, explore, become aware, and prepare based on their own unique abilities to synthesize, resynthesize, think convergently and divergently.

If an occupational/educational ladder were depicted for the gifted/talented student, it would be an extension ladder with the finiteness of the ladder being "unknown potential." The suggested quality of discreteness of the steps of the occupational ladder leading finally to occupational/educational entry does not seem entirely applicable in counseling the gifted/talented student.

A guiding principle for enhancing the self-learning and occupational development of the gifted/talented is to provide extensions on the traditional career ladder which afford open circuits for exploring, experiencing and expressing.

Vocational education is designed to provide for individualized instruction whereby a student can progress at an accelerated pace. It is possible to differentiate the gifted student's program so as to enrich and enhance his/her vocational preparation also.

In the area of vocational development of the gifted/talented, it would be important for the counselor to keep in mind the characteristics of the gifted/talented student-intensity of interests; commitment to follow-through on ideas; independent action, self-initiated learning; tendency to seek alternatives and explore new possibilities; and willingness to consider new ideas.

Types of Vocational Programs

There are several types of vocational education programs utilized in education; today which are used in connection with worker preparation programs. Brief definitions of some of the more commonly used are included here:

Adult Education - - applies to public school programs offered to out-of-school youth and adults. It may include occupational preparation classes, classes for upgrading and updating skills or compentencies, and classes for retraining.

Apprenticeship Programs - - are programs which are employment-based with related instruction provided to the full-time employee in addition to the work week. These usually require 40 hours of work per week and 144 clock hours of instruction per calendar year.

Cooperative Education Programs - - are programs which are education-based with related instruction provided as a part of the students in-school program. Students are typically released from school for on-the-job experience which provide an opportunity to apply what is learned in school. Credits for cooperative work experience are applied toward completion of the student's educational program.

Comprehensive Employment and Training Act Programs - - are vocational training given to the unemployed for the purposes of providing them with minimal employability skills.

Inschool Preparatory Program - - a course offered as part of the student's secondary education curriculum or as a full-time post-secondary curriculum. The student receives related instruction and laboratory experience which are vital to employability upon completion of the program.

Although all of the above are related to providing the worker with skills, in terms of curricular emphasis, everything in vocational education is directed toward making the student employable and promotable.

Vocational preparation can occur in a number of types of institutions, both public and private - - area vocational-technical schools, technical institutes, junior colleges, vocational-technical high schools, business college, industrial operated training schools, industry-related course work, on-the-job training, and specialized training at colleges and universities.

Vocational Education in this Guide refers largely to those programs operated in the public secondary and post-secondary schools from grades 11-14.

THE CONCEPT OF EDUCATIONAL AND OCCUPATIONAL LADDERS

Part of the American Dream is built around the concept of upward mobility toward the abstract goals of success and satisfaction. It is not the purpose of this manual to philosophically, sociologically or psychologically define or defend "what is success?" or "what is satisfaction?". The consequences of upward mobility, however, make these abstractions into realities in the world of work.

Nearly every occupation translates upward mobility into some form of an educational and occupational ladder. Often graphically illustrated in a line and staff flow chart, the sequence of upward mobility is shown in hierarchical order. The worker is expected to begin somewhere on the ladder as being EMPLOYABLE and rise to success by being PROMOTABLE.

What can Vocational Education Contribute to the Gifted and Talented Student?

Vocational education, as conceived in 1963, 1968 and 1976 legislations, is totally directed toward making the student employable and promotable with any of the occupational clusters. Unlike other worker preparation programs, limited in scope or related to other activities such as certification or academic degree programs, vocational education is a total occupational preparation program within the public school structure.

The major differences between the secondary and post-secondary preparatory program are:

* Secondary programs allow the student to complete the high school program and participate in vocational education in a part-time basis which limits the depth and breadth of the preparation program.

* Post-Secondary programs require full-time participation in the program which allows for greater depth and breadth in vocational preparation.

The major objective in any student's life is to find life satisfaction. This goal is multifaceted and includes such things as good health, living in a favorable environment, and being happy. Each student also wishes to achieve success through the fulfillment of his/her highest potential.

The principles upon which the comprehensive education system in America has been built support all of these goals. Good health programs, the equalizing of socio-economic opportunities and differentiated curricular programs are all designed to allow the achievement of an education for all students at all ages in all subjects and in all areas. This is what is meant by being comprehensive.

It is upon this basis that we justify the elaboration of vocational education programs for the gifted and talented student. The challenge of the present and the implications of the future are to review the unique needs, interests and objectives of the students - - all students - - and to prepare them for active and productive roles in the world of work.

The archaic dichotomy between academic and vocational education has made it difficult for students to choose a life-long career. No student should be denied any option our schools offer at any level.

Vocational education cannot be viewed as being terminal any more than academic education is terminal. The purpose of all education is to gain a pre-disposition to become further educated. Every student should be caused to realize that within every educational program there are both academic and vocational elements.

In counseling the gifted and talented student several basic tenets should be transmitted:

* Education in America, with due regard for the individual, is based upon the belief that the maximum social good can be achieved through educating oneself to the fullest potential.

* Each individual assumes the responsibility for making his/her maximum contribution

to the social good by utilizing his/her unique gifts and talents.

- America's socio-economic future is dependent upon an educated populace able to cope with technological change which will increase both in scope and complexity.
- America's future existence is dependent upon the maintenance and preservation of a suitable environment where mankind and nature live in a harmonious balance.
- Leadership is needed in America if its people will learn to cope with worker obsolescence, job displacement, job mobility, increasing automation, early retirement, and increased leisure time.
- America's educational system must become more future-oriented and less reactive to present conditions.
- The future of America and the 21st century and beyond will be dependent upon the effectiveness of the gifted and talented students' entry, preparation and contributions to the world of work.

Satisfaction in life can best be achieved by pursuing an educational program augmented by vocational and academic preparation which leads toward a life satisfying career in one's chosen occupation.

The Conclusion to Begin

Serendipity - The Best and Worst Alternative.

Serendipity, loosely defined as the ability to find, by accident, valuable or agreeable solutions to things not sought for - - the discovery of something while looking for something else. History records an abundance of examples: inventions, disease cures, methods of transportation, combinations of otherwise worthless by-products and solutions to social problems.

It could be assumed that, given enough time, people will arise thorugh our traditional educational system, enter into the world of work or our system of higher education and become the problem-solvers in our society. Experience in this natural growth and development process yields a number of success stories.

As intriguing as this serendipitous alternative may be in our minds, there are a number of practical questions which demand answers:

- Can we wait until it happens?
- How far can we progress without compounding our problems while we wait?
- What if none arise?

The Best Defense is a Good Offense

The relatively obvious answer to the dilemma, as presented from the various viewpoints, is to actively seek and find the most capable persons and place our trust in their potential. Unfortunately, if the school is to be given the responsibility for taking the offense, there are road blocks built into our system which make this alternative difficult to achieve. They can be identified, in part, as:

1. Economical problems associated with revamping our present institutional structures.
2. Conflicting philosophical positions and cultural biasness.
3. Conflicting role expectations of the faculty, board of control, legislature, and students.
4. Exhaustive work loads of those already working as counselors and instructors.
5. Lack of support from the public, the trustees of the schools, other staff members and the students themselves.
6. The unresponsive nature of education to reform, redirect or change.

Think Positive – Think Gifted

In his book "Mind in the Making," James Harvey Robinson said, "What is needed now is an unprecedented attitude of mind to cope with unprecedented conditions, and to utilize unprecendented knowledge." With a firm reliance upon the fact that educators have the knowledge and ability to meet the challenge, they must now think in positive terms as they

proceed to work with the gifted and talented student in vocational education.

Since its beginnings in the colonial state, America has placed its trust in the people. In time of need someone or some group has arisen to accept the challenge, seek and find a solution. A naive populace now awaits the genius who will come to solve society's dilemmas.

Who will arise and accept the challenge of the dilemma? Two fundamental alternatives exist:

1. passively await that genius to arise from the ranks

2. actively seek those with the highest potential and provide them with incentive to seek solutions.

While there may be value in both alternatives or a combination of both, the intent of the legislation and subsequent funding behind this project mandates that an active approach be attempted.

GUIDANCE AND COUNSELING — AN UNFOLDING PROCESS

Background Information

Guidance and counseling as a formalized approach began in the early 1900's with the works of Frank Parsons. It was an attempt to help resolve the many social problems in a time of rapid technological change.

Early guidance workers believed that individual traits could be identified which would fit well into the person's specific choice of vocation and the relational intervention was one of matching the person's traits with the occupation's characteristics.

Parson's vocational guidance model seemed logical and was widely used. But, perceptions of the importance of personal values, feelings and attitudes as influences on the vocational decision-making process began to appear and newer models were developed. As a result, the concept of guidance and counseling has significantly enlarged since Parson's limited model. Today, counseling is seen as a total process of communication.

* The counselor seeks to foster a relationship which is designed to assist individuals to reach their potential in all phases of human endeavor.

* Counseling reflects the democratic ideals of our society which place emphasis on individual freedom of choice, freedom to aspire and the personal-social responsibility which accompanies that freedom.

* The counselor is a catalyst who activates

and coordinates the efforts of parents, school personnel and society in facilitating student growth.

* The counselor is an active participant with the student in examining his/her behaviors, interests and alternative goals, and in helping prepare the student for individual decision-making.

* The counselor works with the student as a whole person recognizing the intertwining multi-dimensional aspects of his/her personality and respecting the dignity and worth of the individual.

* The counselor is concerned with the individual's right to choose his/her own values and goals; is concerned with facilitating the process of goal seeking and goal setting; and is receptive to new ideas, values and feelings of the student.

Standards of the Program have Changed

Guidance and counseling, as a communication process, has expanded beyond the concerns of working with just those who seek vocational assistance. In this enlarged role, program standards have been established which call for the guidance program to reach out and work with the whole school.

* The counselor has a systematic plan for student contact that will insure increased availability to all students.

* The counselor utilizes a variety of techniques (individual, group, class) to increase his/her involvement with students.

* The counselor has an organized plan for contact with staff regarding counselor role and the goals of a counseling program.

* The counselor serves in a consultative role aimed at supporting the staff's efforts to understand and assist students in the learning and living process.

* The counselor utilizes in-service training programs with the administration, staff and parents to provide information and foster a spirit of cooperation among the participants in the process of educating the student.

Appropriate Staffing

The guidance and counseling functions in the schools today have become quite diverse, having expanded to, "pupil personnel services." The counselor is a member of the total pupil personnel service team - - a key link in the individualizing process that keeps the focus on the student as a unique individual rather than as part of an institution.

The counselor is a professionally trained person at the M.A. level or above, certified/licensed according to the regulators of the states in which they operate. The American School Counselors Association recommends a ratio of counselor to student at 1:250, a ratio that is rarely met in our schools today.

The graphic on the following page illustrates the scope of the pupil personnel services in both the regular services and the related areas. Although there are many specific areas of service, it can be seen that such services draw upon the specialized expertise of the total team.

Program Goals for Pupil Personnel Services

As a team the pupil personnel services division within the school system has a number of specific goals which relate to career development. Some of these are under special programs already mentioned such as Career Education, Cooperative Education Programs and the practical arts. The team members work with the school staff assigned to specific programs by:

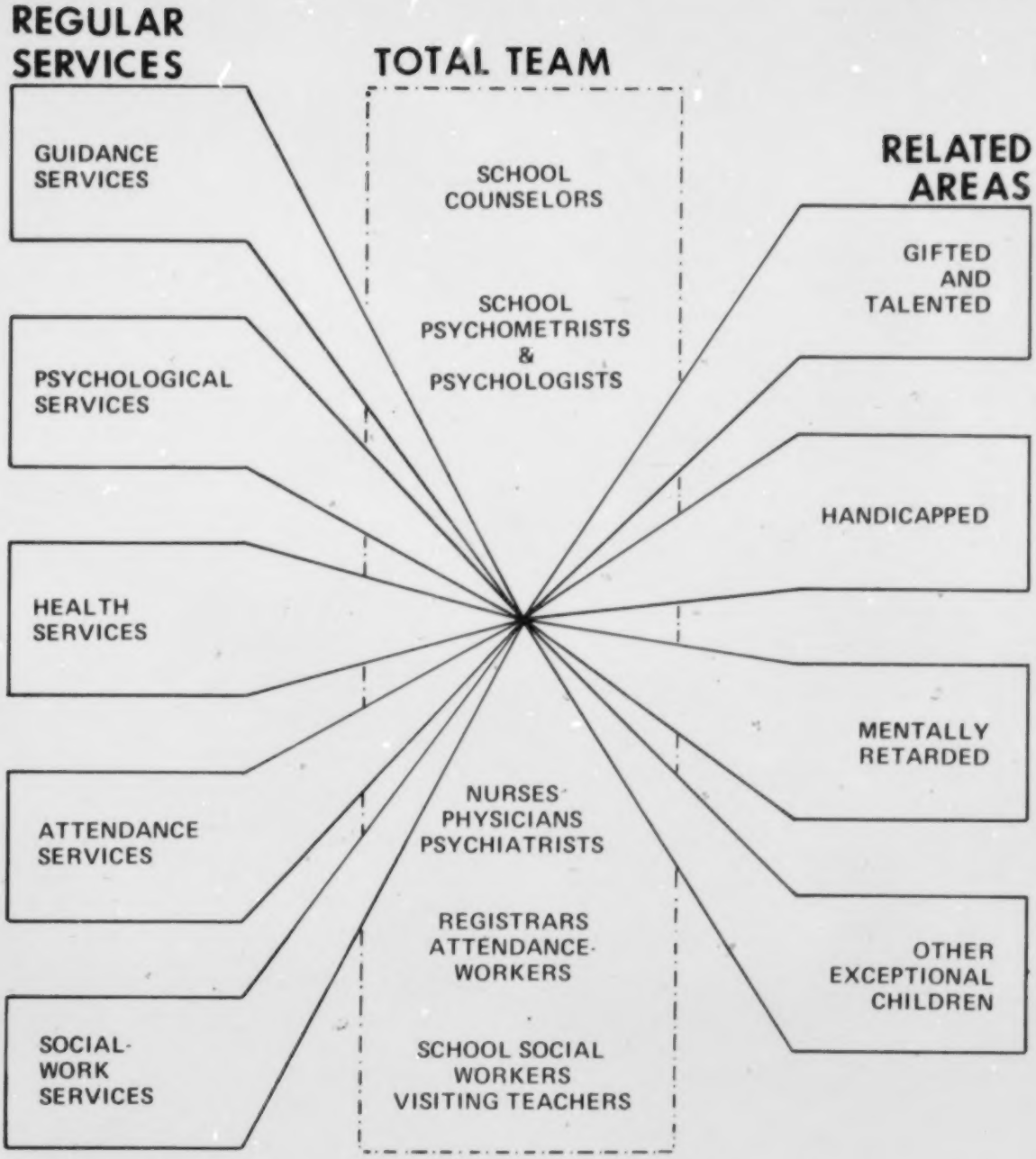
* stimulating an interest in occupational and career development

* compiling and disseminating information on career and occupational choices

* implementing an effective career education and career guidance program from kindergarten through adult programs

* facilitating a job bank/job match system which provides adequate data on job opportunities meeting the students abilities, needs and aspirations

PUPIL PERSONNEL SERVICES



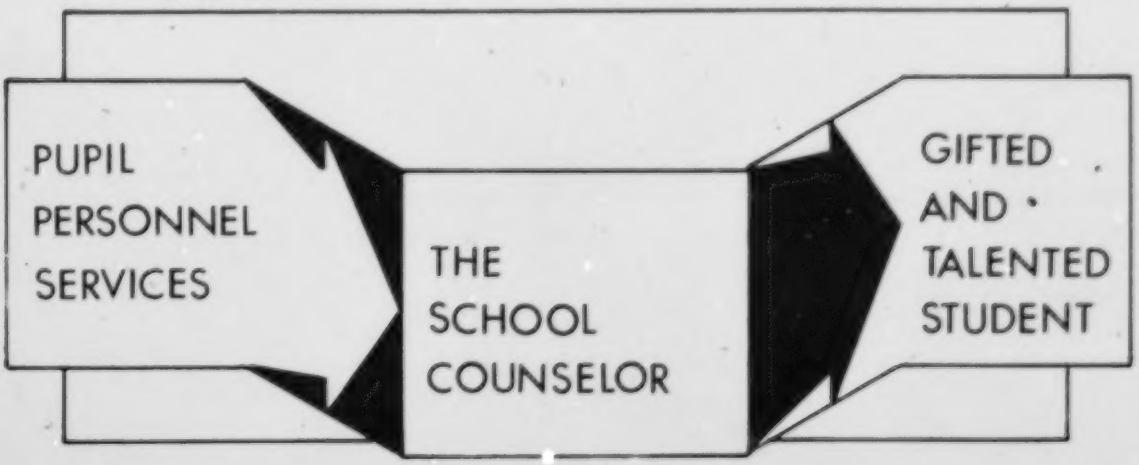
Adapted from Mortensen & Schmuller

- providing specialized guidance services for exceptional students - - this often requires designing differentiated learning/training programs
- providing inservice training programs for faculty and staff in such areas as humanization of the learning process, interpersonal communications, self-concept building, and affirmative action
- working with the school administration in coordinating the curricular program with the student needs - - remedial programs, work-experiences and mainstreaming
- working with the parents and community in extending the educational and personal needs of the student beyond the bounds of school
- attempting to work with each student as an individual person.

and worth of each student and employing helping-techniques that will serve the best interest of each student

- providing leadership in identifying, classifying and using educational and occupational information
- providing leadership in expanding the variety and appropriateness of assessment devices and procedures required for sound personal, educational and occupational decision-making.
- facilitating the personal development of the student by involving him/her in opportunities for occupational awareness, exploration, decision-making, job preparation and placement experiences.

The specific program goals of this manual are seen as directing the total expertise of the pupil personnel services, through the counselor,



Within the context of the program goals of the entire pupil personnel service division, specific goals are assigned to the counselor. Working out of the guidance services the program goals for the counselor are:

- maintaining and fostering a counseling program which is designed to identify and make educational provisions for students of multiple, varied and changing characteristics
- maintaining and fostering a program of counseling which is responsive to the personal characteristics and educational needs of all students; recognizing the dignity

toward the unique needs, interests and goals of the gifted and talented student.

Counseling the Gifted and Talented Student

The primary concern of the counselor is to assist individuals to utilize resources and environmental opportunities, in the process of self-understanding, planning and decision-making, that are relative to their developmental needs and vocational and educational activities.

Counseling the gifted, like any other student, should be a process which continues from early

childhood into the adult years. Gifted and talented children are sometimes thought by educators and even parents to be beyond the need for help. This, of course, is not true. They need assistance and guidance from counselors, teachers and parents just as other students do. Gifted students are often aware of their own giftedness, but this does not preclude their having feelings of inadequacy and confusion about the seemingly endless array of available choices.

Present parental and societal expectations seem to place the counselor in the role of one who seeks scholarships and helps the obviously academically and intellectually gifted get into college. Colleges and college testing organizations have even developed aids for the counselor in assisting the bright student to find his/her spot in the collegiate market.

Apparently, it is not, as well a recognized fact that gifted and talented students may exist outside the intellectually and academically areas. Giftedness in students who are not overly successful in academic pursuits, but who have outstanding abilities or talents in areas such as creativity, productive thinking and leadership is not uncommon.

Suggestions helpful to the counselor in working with the gifted and talented students are as follows:

* realizing that the gifted and talented are nurtured most in environments where individuality, autonomy, freedom to employ alternatives and spontaneity are accepted and encouraged

* providing as much encouragement as possible for them to pursue their interest and "brainstorming" potential sources of information or potential resource persons in the interest area

* establishing an open and honest working relationship which allows for enriching inquiry and decision-making

* seeking cues to help students in their occupational/vocational planning and using the characteristics which established them as gifted and talented

* keeping in touch with the students' parents and teachers to learn as much as possible about what they are doing in other settings

* maintaining as much as possible, a "listen and watch" posture while encouraging the student to become self-reliant - - a free and independent thinker

* being more attentive to the "process of becoming" talented, gifted, creative, and productive, than in " show and tell" products.

Who Should Counsel the Gifted?

As we consider counseling the gifted and talented student, whether in the vocational context or in any other program, it is important to discuss the qualifications, training and experiences of the counselor. The size of the school system, will determine the number of counselors.

What skills are essential for successful counseling in an effective program? Certain basic skills and aptitudes such as warmth, integrity, intelligency, confidentiality, energy, ambition and an honest interest in helping others are essential in any counseling position, and these have been covered thoroughly in the literature. In addition, training in the use of tests, observations, interviews and management skills are also essential.

The person who is selected to counsel the gifted should possess the qualifications of all good counselors, be trained in basic counseling techniques and have an experience-success record. These obvious qualifications cannot be oversimplified, but this is the starting point in selecting the counselor of the gifted - - select a good one in the beginning.

* The counselor should already be functioning as a successful member of the guidance/counseling profession.

* The counselor should have demonstrated ability to be a leader, organizer, and synthesizer.

* The counselor should have highly developed interpersonal relation skills on both a one-to-one basis and in group interaction.

- The counselor should be energetic and willing to accept the challenge of planning, developing, instituting and maintaining a comprehensive guidance program that focuses on the unique needs of the gifted individual.

- The counselor should be able to derive satisfaction from being the catalyst in the success story of the gifted.

In evaluating the counselor of the gifted, certain characteristics should be used:

- ability to relate to individual and groups
- integrity and honesty
- resourcefulness and adaptability
- professionalism
- communication skills
- vigor and the capacity to work
- breadth of interest
- candor and openness
- poise and self confidence
- judgment and maturity
- motivation and enthusiasm
- sense of values and common sense
- sensitivity to individual needs
- sense of perspective and patience
- scholarship and counseling record

The Functions of the Guidance Counselor

The overall design of a vocational guidance program calls for acting in different capacities in the performance of the counselor's functions. Each role has several dimensions and involves activities with and among different groups or individuals.

This complex mixture of roles, functions, groups, and individuals is illustrated graphically and explained here.

As Planner - - -

- focus on exploring ideas, concepts and processes
- investigate broad range of alternatives
- select materials and resources
- involve others in the planning

As Introducer - - -

- present elements of planned programs
- maximize on the thoughts and input from others
- stimulate thinking of alternatives for differentiating learning programs
- encourage free interaction among participants

As Catalyst - - -

- involve others by calling upon their expertise
- encourage and stimulate interest, ideas and participation
- emphasize the need for fulfilling the potential of the individual

As Manager - - -

- minimize managerial and recordkeeping functions of others
- focus on providing time, freedom and individualization
- balance the resources with the program rationale
- emphasize learning and the use of ideas

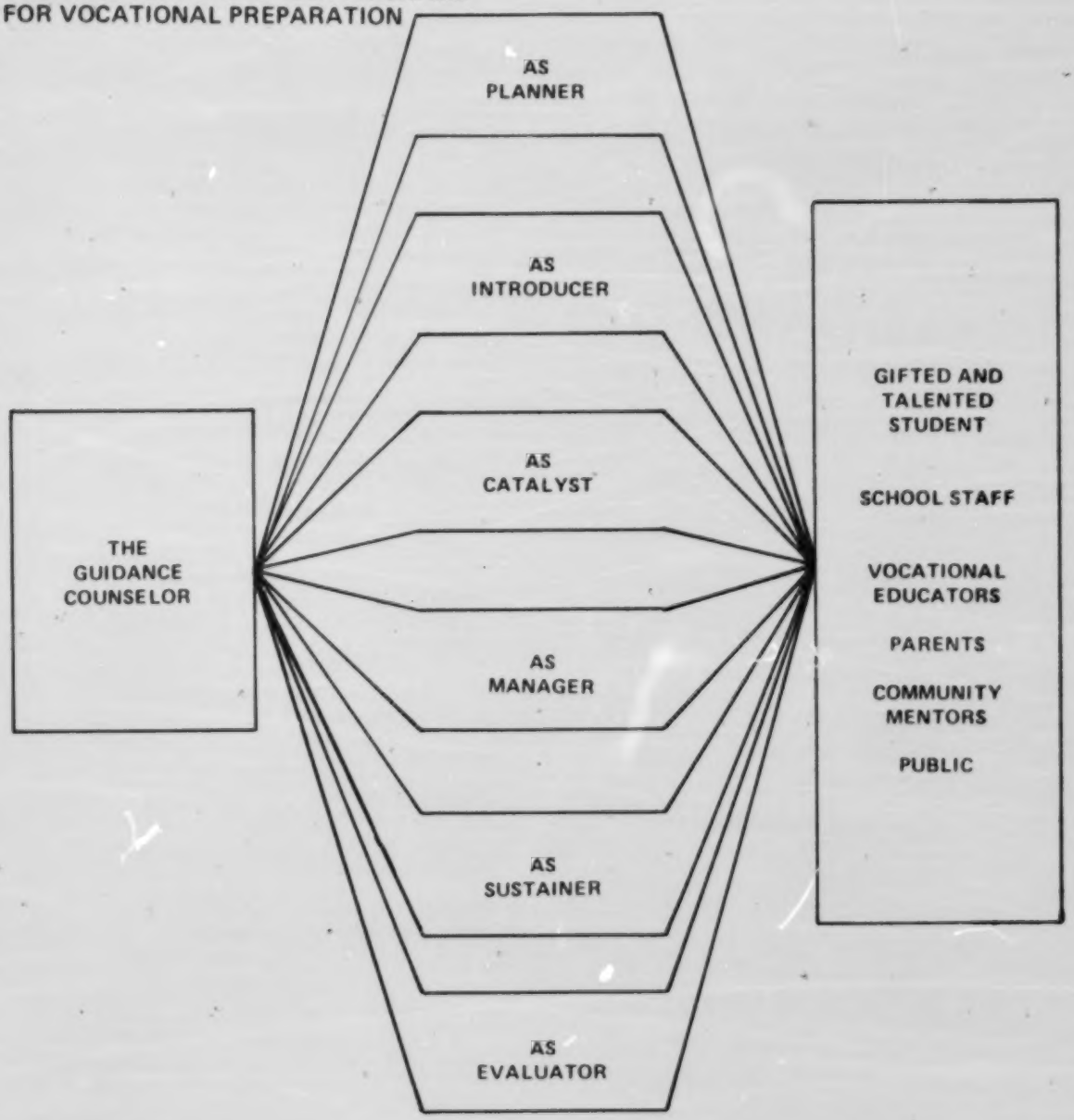
As Sustainer - - -

- foster continued growth and development
- seek sources of new ideas, resources and support
- encourage independence in exploration of ideas and program diversity

As Evaluator - - -

- maintain the intent of the program goals
- provide decision-making information
- reassess needs, input, process and products
- keep others informed
- involve others in assessments

THE FUNCTIONS OF THE GUIDANCE COUNSELOR IN GIFTED AND TALENTED PROGRAMS FOR VOCATIONAL PREPARATION

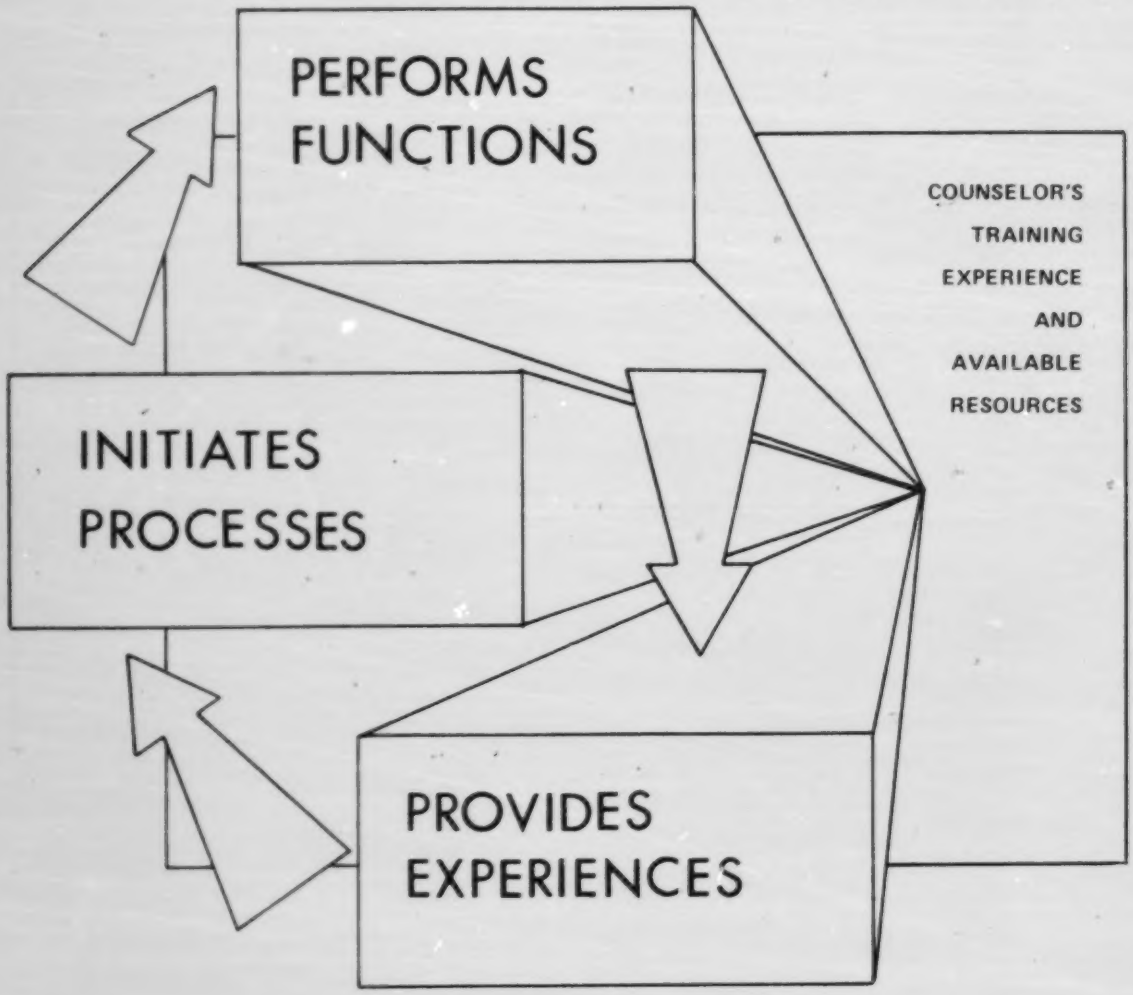


IMPLEMENTATION OF A GUIDANCE PROGRAM FOR THE GIFTED AND TALENTED IN VOCATIONAL PREPARATION

To implement a guidance program that effectively places the gifted and talented into vocational preparation training, the counselor's duties fall into three categories - - functions, processes and experiences. Each category has a series of activities which draws upon the counselor's training, experience and available resources. All of the activities are closely interrelated and interactive.

When developing counseling programs for the gifted and talented students, it is important to consider possible creative behaviors of the

THE ACTIVITIES OF THE COUNSELOR



gifted and talented as outlined by Torrance, Getzels and Jackson and others. These may provide cues for the counselor in his/her role in planning vocational counseling activities for the gifted and talented students:

* inventiveness
* willingness to take risk
* proneness to search in varying directions -- less goal-bound
* intense involvement, perhaps characterized by animation, intense body movement while writing or drawing, excitement in voice and rapture about discoveries, low distractibility, intense absorption in listening, observing and doing.
* self-initiated learning that seeks alternatives and new possibilities, while willing to consider new ideas.

The implementation of the various aspects of the counselor's role must be viewed as the total process of working with all involved. However, it serves the purposes of this manual better to break that total role down into suggested activities with the various sub groups - - the gifted and talented students, school staff, vocational educators and parents.

Suggested Counselor Activities with Students

The following guidelines are recommended:

. . . assist the gifted and talented student in becoming familiar with his/her own interests, abilities, aptitudes and psychological needs that aid him/her in effective personal decision-making

. . . provide the gifted and talented students with experiences and opportunities which will give him/her an awareness of vocational preparation alternatives available at the secondary and post-secondary levels

. . . provide the gifted and talented student with opportunities for meeting vocational educators to discuss entrance requirements, training programs, and opportunities for placement following completion of the programs

. . . establish a program which utilizes community and business personnel as specialized mentors for the gifted and talented students and then provide the student with the opportunity to work with this mentor at his/her place of business

. . . assist the gifted and talented student to determine his/her preferences for working with people, ideas or things

. . . assist the gifted and talented student to determine preferences for a working environment - - office, institution, outdoors, traveling, and so forth

. . . assist the gifted and talented student to develop, prior to graduation, a career plan which identifies opportunities for mobility with occupations, resources for further education, and opportunities for a leadership role in his/her chosen vocation.

Suggested Counselor Activities with School Staff

The following guidelines are recommended:

. . . develop workshops and seminars for the training of teachers and other members of the educational team for an awareness of the characteristics of the gifted and talented student, techniques for identifying giftedness and techniques for fostering the individual development of these students

. . . receive recommendations from staff concerning the selection and use of community and business personnel as specialized mentors for the gifted and talented student

. . . enlist the support of the vocational educator in preparing a program for the staff, focusing on vocational preparation programs available for the gifted and talented student at the secondary and post-secondary levels

. . . provide for in-service training of the staff, highlighting the relationship between occupational planning, educational programming and curriculum and the development of the gifted and talented student

. . . provide for the establishment of a guidance advisory committee to serve as advocates for

program change and innovation that will meet more appropriately the needs of the gifted and talented students

. . . develop a newsletter to provide relevant information to the staff about the utilization of computers, job banks, view decks, and other media that would broaden their knowledge base for working with the gifted and talented student (The newsletter might feature a member of the community each time who is involved successfully in a vocation. Remember the importance of including both women and men in these featured interviews who are in traditional and non-traditional vocations.)

. . . provide for activities which foster a closer working relationship between parents and teachers of the gifted and talented student as they assist the student in the process of vocational decision-making.

Suggested Activities with Vocational Educators

Activities recommended are as follows:

. . . meet with the vocational educators to discuss their programs, their methods of instruction, their expectations of student exit level competencies, and the potential programs which they feel would challenge the more capable students

. . . arrange for individual conferences with each of the vocational instructors to gain insight into their specific program offerings

. . . explore the possibilities of differentiating their individualized programs to accomodate the gifted and talented students' needs, interests and goals

. . . enlist their support in providing input into a team approach for working with the identified gifted students

. . . organize specific in-service training activities to assist the vocational educators in knowing how to program and work with gifted students

. . . gain a commitment to attempt to involve gifted students in differentiated programs.

Suggested Counselor Activities with Parents

In dealing with parents, certain activities are delineated:

. . . meet with parents to discuss the special abilities, needs and characteristics of their gifted and talented child (see identification section); discuss with parents their role in the occupational planning and decision-making processes of their children

. . . arrange for meetings with school staff, parents and vocational educators in attendance so the staff will help the parents have a better understanding of the school's role in assisting their gifted and talented child in vocational awareness and planning

. . . develop a newsletter to inform parents of vocational opportunities and options which may be of interest to gifted and talented students

. . . organize meetings for parents where vocational educators will discuss opportunities for gifted and talented students in the vocational areas, including such topics as apprenticeship training; opportunities for gifted and talented young women in non-traditional vocational areas; expanding options in the labor market for heretofore unknown vocational specializations and others

. . . enlist the support of parents to secure suitable employment opportunities during the summer months which will give gifted and talented students a chance to try out experiences to help them determine the extent of their interests in a specific field

. . . invite members of the community who are functioning successfully in a vocational career to talk with parents candidly of their decision-making processes, their career and its life-satisfying characteristics and the skills involved in their occupation.

(Remember to include both men and women from the community in so-called traditional and non-traditional vocational roles.)

A SPECIAL NOTE OF CAUTION:

Prior to the use of evaluation procedures for identification of gifted and talented students, specialized and individualized programming and placement for the student, the counselor needs to be aware of legal guidelines (state, local and national) and ethical considerations involved in securing parental approval. Parents need and want to be involved in the educational planning processes for their youngster.

The Use of Community Mentors

As Bruce Boston (1976) has pointed out, it is time for re-examination of what is perhaps the longest lived pedagogical relationship - - that of the mentor with the student. In many of the gifted and talented programs the educators have turned to skilled persons in their community in an attempt to find individuals who will share their interest, commitment and expertise with the gifted student on a one-to-one basis.

A mentor-student relationship can be a valuable asset to a vocational preparation which requires differentiation from the regular program. Tradespeople, professionals, hobbyists, technologists and others who are active in the student's chosen occupational field can provide enriching experiences. Further identification of the depth and breadth of the student's talent can also be gained.

The role of the mentor can be seen as fulfilling several functions:

* the tutorial function which broadens the learning potential
* the guidance that comes from training and knowledge of one established in the field
* the function of communication with someone who shares common interests
* the encouragement and motivation functions which are often needed to make career decisions
* the function of serving as a success model or a frame of reference as the student searches for a life-satisfying occupation.

The roles of the guidance counselor and the vocational educators are to establish the gifted student into a differentiated program; to seek a community resource person (mentor) who is willing to commit time and share in the student's growth and development; to provide adequate time and freedom for the mentor and pupil to interact; and, to coordinate the enrichment activities with the student's total preparation program.

As with most of the vocational preparation programs the experience-instruction through mentorship should be competency-based with specific learning goals established. Those goals may range from mere awareness through mastery of techniques.

THE PROCESSES OF GUIDANCE AND COUNSELING

Guidance and counseling of the gifted and talented involves one major process: that of identification. Identification, in turn, is closely related to the guidance counselor's traditional functions and to the providing of vocational experiences.

Identification

Counselors will find very quickly that there are no clear-cut methods of identification. However, there are many resources which will help them. It is essential that the counselor be as informed as possible of what has been done and what is being done in the identification process.

In setting forth an identification program for working with the gifted and talented related to vocational education, many of the accepted tenets about identification will be helpful. The counselor at the outset, at least, should accept these as basic truths in working with the gifted.

* The gifted and talented student is first and foremost a human being with basic needs and wants like all other persons.

* The gifted and talented student is an individual with unique needs which require differentiated programs and services beyond those normally provided by the regular school program.

* Early identification of the gifted is not only desirable, but it is also advantageous in programming, instruction, counseling and providing experiences which will realize their potential contribution to self and society.

* Giftedness and the possession of talent cannot be narrowly defined. They are broad-based and multi-faceted.

* Although most people have some gifts and talents in varying degree, gifted education is concerned with those who have outstanding abilities and/or are capable of high performance (generally seen as the top five percent or less) in one or more areas.

* Identification of gifted and talented youngsters is only the beginning and is useless unless the curriculum is modified on the basis of their advanced accomplishments, interests and potential.

After making an initial acceptance of the above basic truths, the next hurdle is that of gathering identification data.

Who are the Gifted?

In consideration of any phase or working with the gifted and the talented, educators must first realize that these are exceptional students. They are students with special needs which require educational provisions beyond those provided in the regular instructional program. As with all special education, there are varying degrees of exceptionality and needs.

The major difference between the gifted and talented students and other exceptional children is in the extremely high level of their potential. The education for exceptional students, often referred to as special education, is concerned with children and youth who deviate intellectually, physically, socially, or emotionally from normal growth and development patterns to the point that they cannot receive maximum benefits from regular school programs. Even when given extra help by the regular classroom instructors these children's needs are left unfulfilled.

In the case of the gifted and talented, the students may be "normal" physically, socially, emotionally and even intellectually. They seem to possess an undefinable extra ingredient that sets them apart.

The most commonly accepted definition of gifted children is the expanded definition developed by the U.S. Office of Education. It reflects the current concern for the multi-faceted dimensions of their abilities and competencies:

> Gifted and talented are those identified by professionally qualified persons who by virtue of outstanding abilities, are capable of high performance. These are students who require differentiated educational program and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.

Students capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

* general intellectual ability

* specific academic aptitude

* creative or productive thinking

* leadership ability

* visual and performing arts

* psychomotor ability

Willard Abraham (1976) believes there are certain rules for vocational counseling and certain objectives for gifted students. They are compatible with the philosophy of counseling as stated by APGA & ASCA. Abraham states the "rules of vocational counseling" as follows:

* It is the student's life and his/her decision.

* The choices are not limited to ones he/she

knows about. To present a complete picture, he/she should be exposed to all the others that might be gratifying and in which he/she might be interested if only he/she is aware of them.

- The gifted are generally good at analyzing themselves; therefore, their own analysis is important.

- Counseling information and experiences of the early years will help make decisions later on.

Some suggestions may be helpful in working with the gifted and talented student:

- Difficulty in making occupational decisions often stems from a number of circumstances within the student's lives. The interaction of occupational information, values clarification and decision-making skills is a necessary approach to meeting student's needs.

- Vocational counseling has not gone far enough in relating personality to occupational choice.

- The vocational counseling process is and can be enhanced by the active involvement of the student.

- Vocational counseling is not as much a matter of the student's making a final occupational choice, but rather a matter of several occupational possibilities being defined for further exploration.

Concluding Statement on Guidance and Counseling

Guidance and counseling was established on a vocational base when industry approached educators for assistance in attracting, recruiting and placing students in the labor force. Because the public schools were, and to a large extent still are, academically oriented toward college preparation, preparing students for jobs in industry was perceived by educators as the lesser of educational alternatives.

Parents, as well as educators, also saw vocational training courses as a "dumping ground" for the less capable student. This made it difficult to counsel the more capable student into vocational fields. But industry still called upon the schools for a higher caliber of student who was in part prepared to enter the working force.

Industrial technology increased in scope and complexity and the need for more highly trained and skilled workers became even greater. Education on the other hand, maintained its primary academic thrust. Even though there have been highly developed vocational preparation programs which would challenge the abilities of the best student, the old image of low prestige persists in the minds of most educators and the lay public.

The guidance counselor has been caught in the middle of industrial-technical demands on the one hand and the prejudice against preparing for jobs on the other. This has resulted in the low image which is reflected in the statement by Ohio's Governor Rhodes, " . . . the vocational guidance program in the public school has been a failure." (Rhodes, 1970)

Meanwhile, the increased scope of demands made on the public school pupil personnel services places vocational guidance as one service among many. Albeit, the guidance personnel, too, have placed a low priority on vocational counseling.

Recent emphasis on Career Education in our public schools (k-12) has done much to revive and renew the emphasis on vocational awareness, exploration and preparation. Career Education emphasis has also made the public more conscious of the need for vocational training in seeking a life-satisfying occupation. Through Career Education the blending of academic and vocational education experiences has been widely accepted.

With the emphasis in this manual on attracting and recruiting gifted and talented students into vocational preparation programs at the secondary and post-secondary level, it now becomes obvious that the guidance personnel will have to be trained, retrained or updated in occupational counseling. The following sections are directed toward those ends.

METHODS OF IDENTIFICATION

Many methods have been designed to aid the educator in the search for the gifted. The most frequently used screening devices are checklists, observation, standardized tests, and nominations. Each of these will be given separate treatment later in the manual, and the advantages and drawbacks of each will be discussed.

A brief summary of some of the techniques is presented as a frame of reference for what will follow:

Checklists - - the listing of behavioral characteristics usually associated with gifted and talented children and youth

Checklists With Rating Scales - - an attempt to gain quantifiable data from the checklist of behavioral characteristics

Observation - - trained observers asked to watch a student or a group of students, looking for indicators of giftedness or marked degrees of talent

Observation With Checklists Or Rating Scales - - a combination, giving a more reliable basis for observation and allows for comparable data from several observers.

Identification Through Experience - - a form of observation which provides an opportunity to observe the student in the classroom, playground, laboratory or shop setting; with or without checklist and rating scales

Standardized Testing - - a familiar screening technique to guidance and counseling personnel which utilizes individual or group administered tests to determine intelligence, aptitude, ability, attitudes, self-concepts and the like

Nominations - - a procedure with or without checklists or rating scales where parents, teachers, administrators, adults of the community, other students or the peer group are called upon to nominate those individuals whom they perceive as being outstanding or capable of high performance

Interviews - - a screening device usually administered to those who have been initially screened by one of the preceding methods, a trained person such as the counselor seeks further information as to interests, hobbies, activities, goals, aspirations, attitudes, etc.

Case Studies - - a technique reserved largely for those who have already been well identified; case studies are used to gain further insight into the whole gifted person and have value in working with the gifted student over the years he/she is in school

Intuition - - not often cited as a reliable identification technique, this approach allows the counselor and/or teacher the freedom to "play a hunch;" some students escape from all of the known and used techniques, but something about him or her gives you the "feeling" that they have a "hidden potential;" don't rule it out.

Ultimately, the most effective way to identify gifted and talented students is to make all of the teachers aware of the characteristics and to train them in identifying them. Many gifted students are passed off as being precocious, troublemakers, dull, apathetic. Teachers trained in identification may be able to look beyond these otherwise misleading characteristics and spot a potentially gifted youth.

In preface to exploring the listing of characteristics of the gifted, it is well to note that

there is no standardized, best checklist, test or nomination procedure. There is no one way to identify and screen. We do, however, have alternatives from which to choose.

Characteristics Checklists

One of the more common forms of checklists is that of listing characteristics of giftedness. Nearly every major writer/researcher in the area of gifted education has developed such a list. The characteristics are compiled from a variety of sources based upon documented research, case studies of known gifted/talented persons, and empirical observations. Some of the more widely used have been cited in the references. Those interested in using characteristic checklists will soon note that there are conflicting data. It is well to use information gained from such checklists as guideposts or indicators of giftedness which relate to the program objectives. For example:

> In vocational education students with outstanding abilities will find many opportunities to develop new and better means of transporting people, manufacturing goods, or communicating information.

This suggests that a program might be:

> Goal Statement: To allow that student an opportunity to explore, design, develop and test new methods of transporting goods.

In light of this goal it would be important to have identified students who have creative or productive thinking characteristics. Once identified, the student who exhibited such characteristics could be placed in a learning program which would enhance the further development of these characteristics.

The counselor's role in the example given would be to assist in the identification of desired characteristics and to help program for an enriching learning experience.

An Example of a Checklist for Faculty Use

Generally, most identification processes deal with two factors - - first, the general definition given by the U.S. Office of Education of all gifted and talented students and second, the listing of specific illustrative characteristics of individuals. The following list may be used by the faculty as a checklist.

* ability to read earlier and with greater comprehension of nuances in the language
* ability to learn basic skills better; the gifted child usually learns them faster and needs less practice; overlearning can lead to boredom, cessation of motivation, and the commission of careless errors.
* ability to make abstractions when other children at the same age level cannot
* ability to delve into some interests beyond the usual limitations of childhood
* ability to comprehend, with almost nonverbal cues, implications which other children need to have "spelled out" for them; the gifted gouge out a greater amount of information and do so faster.
* ability to take direction independently at an earlier stage in life and to assume responsibility more naturally
* ability to maintain much longer concentration periods
* ability to express thoughts readily and to communicate with clarity in one or more areas of talent, whether verbal, numerical, aptitudinal, or affective
* ability to read widely, quickly, and intensely in one subject or in many areas
* ability to expend seemingly limitless energy
* ability to manifest creative and original verbal or motor responses

* ability to demonstrate a more complex processing of information than the average child of the same age

* ability to respond and relate well to peers, parents, teachers, and adults who likewise function easily in the higher-level thinking processes

* ability to have many projects going, particularly at home, so that the talented child is either busily occupied or looking for something to do

* ability to assume leadership roles.

An Example of a Checklist with a Rating Scale

The following checklist with a rating scale, using the Kough and De Haan items as a base, has been taken from Ruth Martinson's, THE IDENTIFICATION OF THE GIFTED AND TALENTED, Ventura, California, 1974. It is an excellent example for teacher referrals.

In the following items, check the column which best describes the child's functioning:

	RARELY	OCCASIONALLY	OFTEN	MOST OF THE TIME
a. Learns rapidly and easily.				
b. Thinks clearly, recognizes implied relationships, comprehends meanings.				
c. Reads above grade level.				
d. Retains what he/she has heard or read without appearing to need much rote or drill.				
e. Has large vocabulary.				
f. Is independent, individualistic, self-sufficient.				
g. Is curious, investigative.				
h. Asks penetrating, searching questions.				
i. Has long attention span.				
j. Produces original products or ideas.				
k. Prefers complex ideas.				

Observation Techniques

Observation techniques generally fall into three categories: (1) personal observation by the counselor or teacher, (2) observations by other staff members, parents or community members, and (3) observations by specially trained persons such as psychologists, gifted educators, talented persons in the student's perceived talent area and persons with an expertise related to the student's interest area. Observations can be conducted over long periods of time or during a specific event.

It is recommended that the observer be given some indications as to what to watch for. Checklists, rating scales and judging criteria will assist in the feed-back process following the observation. Health reports, classroom behavior, degree of participation in an activity, ability to perform given tasks, and the like are examples of observation guides. Some of the areas where observation techniques are of the greatest value are in determining the level of ability or potential ability. Psychomotor skills can readily be assessed by those who are either trained or skilled in a like activity - - the skilled craftsman can make judgment of ability and potential better than the layman or even the craft instructor.

Observation techniques tend to imply that one is "to look" or "see." In many instances, observation can be by "hearing," "feeling," "tasting" and "smelling." All five senses may be used in gathering empirical data in some instances.

One other important consideration should be noted which relates to observation and its use in identification. That is what is currently being called "identification through experience."

Abraham Tannebaum of Columbia University says, "if you want to identify architects, you have to give the student architectural experiences. The gifted student has to be caught out of the experience." No amount of testing, interviewing or checking on interest level will equal the information that can be gained by observing the experiencing of an activity. Through the perception of skilled artisans, the potential can be recognized, even in its earliest stages of development.

Some of the observable characteristics which may indicate giftedness are as follows:

* shows independence of action
* demonstrates fluency in verbal and non-verbal communication
* shows imagination in thinking
* is flexible in approach to problems
* demonstrates abstract thinking
* learns quickly through his/her experience
* retains and uses ideas and information well
* shows curiosity and a desire to learn in daily work and activities
* gives evidence of originality and creativity in patterns of thinking
* responds well in visual media
* shows leadership ability in his/her peer group
* exhibits responsible social behavior
* has varied interests
* is able to generalize learning to other areas.

Standardized Tests

The use of standardized tests has great value in the identification of gifted and talented students. Although there has been some concern expressed as to cultural bias and the weaknesses in using tests with bilingual and minority groups, testing is still considered essential in gaining definitive information. The following table provides suggestions for the counselor to consider in the identification process. No attempt has been made to list all the specific tests in every category since each school generally establishes its own testing program from kindergarten through 12th grade. The chart describes some of the advantages and disadvantages of using individual and group intelligence measures, achievement measures, aptitude and special aptitude measures, interest measures, personality measures and tests of creativity:

METHODS OF IDENTIFICATION	ADVANTAGES	DISADVANTAGES
Individual Tests of Ability (Stanford Binet, Wechsler Intelligence Scale for Children)	1. thorough, with subtests which provide further information on abilities 2. well-designed, well-normed tests 3. well-controlled testing situation for optimal performance	1. may not give realistic view of potential due to ceiling IQ's at various age levels 2. must be administered by counselor/school psychologist who is trained to give these tests 3. provides only one indication of intellectual giftedness 4. involves greater expense than other tests
Group Intelligence Tests	1. easy to administer 2. less expensive to administer than individual test of ability so may be given at intervals throughout the school years 3. yielding a language and non-language I.Q. which may be more reliable for students from culturally disadvantaged backgrounds and bilingual backgrounds	1. may result in too heavy an emphasis on a single I.Q. score 2. provides only one indication of the many facets of giftedness

METHODS OF IDENTIFICATION	ADVANTAGES	DISADVANTAGES
Standardized Achievement Tests	1. beneficial in identifying strong as well as weak areas in several school subjects 2. helpful in providing additional information; useful as a screening method in identifying giftedness, when used with a gauge of general ability	1. results in poor readers not faring well 2. penalizes students with emotional difficulties who may not perform well on tests 3. penalizes students who lack motivation 4. does not measure traits associated with creativity (Guilford, Torrance)
Aptitude and Special Aptitude Tests	1. beneficial pointing out giftedness in one or more subtest areas showing a student's potential for giftedness in a special talent	1. depends on ability to read, level of motivation, physical and environmental factors and also, may be culturally biased 2. may not measure creative talents, in the case of special aptitude tests such as the Seashore Measure of Musical Talent (see Thomas and Crescimbeni)
Interest Tests	1. helpful in areas of strong interest; provides a good counseling tool via interpretation to the student or his/her parents 2. supplemented by teacher or observations, and biographical information	1. results in possibility of faking interests 2. does not gauge an interest in relation to ability in that area
Tests of Creativity	1. helpful in providing another dimension of characteristics of the gifted student (Torrance Tests of Creative Thinking, Alpha Biographical Inventory, Guilford's "Alternative Uses" Tests for Teachers)	1. cannot measure creativity effectively with one single test 2. further study needed in this area 3. creativity expressed in so many ways that tests for creativity may be very poorly correlated

METHODS OF IDENTIFICATION	ADVANTAGES	DISADVANTAGES
Personality Measures	1. helpful for providing information about behavioral characteristics of gifted students; i.e.: efficiency, level of activity, and enthusiasm 2. instruments such as Mooney Problems Checklist on SRA Junior & Youth Inventories helpful for providing information about student perceived areas of concern which in turn may be useful in working with individuals or small groups	1. may not be accepted as part of a public school testing program 2. need more refinement in identification of attitudes associated with giftedness

The authors have assumed that this manual will be used by trained and experienced guidance and counseling personnel. Accompanying that assumption is the realization that such trained pupil personnel workers have their own favorite tests, have established their own use patterns and have clarified their own values as to strengths and weaknesses. As with all screening devices, standardized tests are not indicators of program success.

Nomination Techniques

Potentially gifted and talented students evidence their capabilities in varying environments. The counselor, teachers, administrators, librarians, and other school staff are often limited in observation to the school setting. Parents, community members and the students' peer groups, on the other hand, have an opportunity to observe the student in a variety of settings. Nomination techniques are valuable in identifying the gifted through the perceptions of others.

The following chart indicates three types of nominations and the authors' judgment as to the advantages and disadvantages of each type.

Again relying on Ruth Martinson's, **The Identification of the Gifted and Talented,** a sample of a nomination form is presented. This nomination form is intended for teacher use and incorporates the traits of creative youth identified by Barron (1968) with some modifications.

Will you please take a few minutes to write in the first and last names of one or two children (or more) whose names come into your mind **first** as you look at the terms below? This should be done as free association, very rapidly. You need not fill every space, and to save time, if you list a child more than once, use his first name and last initial to save time after the first listing. Thank you very much.

1. Learns easily _____
2. Original, imaginative, creative _____
3. Widely informed _____
4. Persistent, resourceful, self directed _____
5. Common sense _____
6. Inquisitive, skeptical _____
7. Informed in unusual areas _____
8. Artistic _____
9. Outstanding vocabulary, verbally fluent _____
10. Musical _____
11. Independent worker, shows initiative _____
12. Good judgment, logical _____
13. Flexible, open _____
14. Versatile, many interests _____
15. Shows unusual insights _____
16. Shows high level of sensitivity, empathy _____
17. Has excellent sense of humor _____

TYPES OF NOMINATIONS	ADVANTAGES	DISADVANTAGES
Parent Observations and Nominations	1. Parents can provide information about talents their children have which are not readily observable in the school setting. 2. Parents are in the best position to know their child.	1. Parents may be somewhat biased about their child's abilities. 2. Some parents do not frequent the school and are not readily accessible to school personnel for information about their child.
Peer Observations and Nominations	1. Peer observation often focuses on areas which are not readily discerned as areas of giftedness by others in school or at home, i.e., outstanding qualities of leadership and sociability, outstanding motivation for specific tasks, outstanding organizational ability and others not observed in non-peer settings on adult-student settings.	1. Gifted students may hide their abilities from peers. 2. Levels of competition in some school settings may deter students from identifying talents in member(s) of their peer group.
Teacher Observations and Nominations	1. The teacher knows the student best in the school setting and sees the student in comparison with others past and present. 2. The teacher may be more familiar than others in the school setting with characteristics of the gifted.	1. The teacher may not identify the student who may be talented in some area which is not easily observed in the school setting. 2. The teacher may not identify the student who has reading difficulty, is an under-achiever, lacks motivation or is environmentally deprived. 1. Gifted students may hide their abilities from teachers.

Nomination validity lies in "the eyes of the beholder." Some success has been reported in gaining reliability by the incorporation of socio-metric types of plotting. The nomination technique has been presented here merely as another alternative in the identification process, but not as a research instrument.

Interview Techniques

No comprehensive search for the gifted and talented would be complete without interviews. The counselor is encouraged to talk with the parents, teachers, community members, mentors and the student. Valuable insight can be gained on how to work with the gifted boy or girl in addition to identification information.

The counselor may choose to structure or not to structure the interview. Regardless of how it is handled, the interview should constitute a demonstrated interest in the gifted student's growth and development. If possible, a record of the interview should be placed in the student's cumulative file. The counselor's judgment as to whether or not to disclose information gained through the interview to the student should be within legal and ethical bounds.

Here are listed some topics which may give the counselor indicators that will assist in vocational guidance:

* how the student relates to others
* how he/she handles stress and crisis situations
* what problems they have with rest and fatigue patterns
* what their decision-making pattern is
* how well he/she transfers knowledges and skills
* how well he/she handles problem-solving situations
* what he/she does in his/her leisure time.

Naturally, the topics will vary with the person being interviewed, but in general, the interview is recommended for the purpose of understanding more about the students' social, emotional and physical being. Interests, academics, leisure-time activities and career aspirations are other suggested topic areas.

The Use of Case Studies

Most authorities in guidance and counseling as well as in gifted education perceive the case study as the end product of the entire identification process. It is in this document that all of the information gained is compiled for the purposes of program planning.

Naturally, the more sources of data that can be utilized, the greater the value of the case study report. Annotated references to the types of identification procedures in addition to anecdotal information further enrich the report.

In compiling a case study care should be taken to insure that the student's rights are not being violated. Counselors should be aware of their professional, legal and moral limitations on documentation of information.

On the other hand, it is essential that as much data as possible be gained on the gifted and talented student as a whole person. A repetition of the school cumulative academic file is of little value. There are many good models for the development of a comprehensive case study. In all probability, each counselor has access to several in his/her own professional library.

A case study should be developed over a period of time. In a sense, it is both "always complete" and "always developing." Repeated here, for emphasis, is the statement that the case study is compiled for the purposes of effective program planning.

The preceding section of the types of identification techniques has been set forth as informational guideposts. As has been already stated there are nc clear-cut measures which can be used in the identification process. Some of the difficulties appear to be:

* insufficient data on the individual
* instability in measuring devices such as checklisting
* attempts to draw specific conclusions from generalized statements

* attempts to draw generalizations from specific statements

* validity and reliability resulting from the value judgment of the person using the identification techniques

There is value in examining a number of behavioral appraising techniques. One of the most common weaknesses in the identification process has been the dependency upon one test score or an achievement profile. The more variables that can be examined, the most likely one is to "screen in" rather than "screen out" the gifted youth.

Theory vs. Practice

The following table has been included to show the gap between theory and practice. It is evident that teacher observations and nominations are the most used identification procedure. In a summary of various studies on the ability of teachers to nominate the gifted, Gallagher (1966) found that none of the studies he reviewed showed the teachers to good advantage. It is presumed that the teachers are global in their value judgments and find it difficult to look for specific traits or characteristics.

The counselors are encouraged to examine the table, and draw their own conclusions.

Major Procedures Used and Recommended in the Identification of Gifted Students

MAJOR IDENTIFICATION PROCEDURE	Percent Using	Percent Recommending
Teacher Observation and Nomination	93	75
Group School Achievement Test Scores	87	74
Group Intelligence Test Scores	87	65
Previously demonstrated accomplishments (including school grades)	56	78
Individual Intelligence Test Scores	23	90
Scores on Tests of Creativity	14	74

Source: S.P. Marland, **Education of the Gifted and Talented**. Washington, D.C., U.S. Office of Education, 1972, p. 261.

SPECIAL CONCERNS IN IDENTIFICATION

After viewing some of the most common practices or techniques used in identifying the gifted and talented student, it should be evident that identification is indeed a complicated process. Even though much has been done to improve the state of the art, there are still many avenues which are of special concern; some of the most immediate ones are:

- How can we identify the older gifted student or person who drops out or is graduated from the regular school program?
- How can we identify those gifted who are handicapped or disadvantaged?
- How can identification practices be used among the minority groups and the culturally different?
- How can we avoid being influenced by sex-role stereotyping in the identification process?
- How can we apply identification techniques to the rural and rural-isolated student?

Many of these concerns limit the potential development of any student. To be gifted and talented in addition to being disadvantaged places the student in double jeopardy. However, much time, energy and money have been applied toward improving the educational opportunities for students in the areas of concern. Much more needs to be done.

Characteristics of Older Gifted Youth

Since it is essential to identify gifted and talented students as early as possible, most of the rating scales, interview guides, checklists of characteristics and identification tests have been directed to young children. Experience and research bear out the fact that the longer a student goes unidentified, the more difficult it is to develop gifts and talents to desirable levels of fulfillment.

Similarly, programming techniques for the younger gifted children have advanced more rapidly. The majority of the publications on gifted education are directed toward teaching creativity, problem-solving, divergent thinking, decision-making, etc. in the early grades.

Consequently there is a limited amount of information available on identification and working with older students - - junior high and above. Attention must be paid to this concern if we are to program effectively with gifted students at the secondary and post-secondary. Also, there is a need to make a concerted effort to identify, counsel and program the "late-blooming," under-achieving and the disadvantaged gifted youth.

A limited survey was made in conjunction with the development of this manual for the purpose of addressing the characteristics of older gifted youth. Nine well known authorities were asked to submit statements on the topic based upon their work in gifted education. The following is a synthesis of their responses:

- Observation of the students in a work experience is a better source of information than any testing situation.
- One-to-one interviews about interests, activities and life-goals provide valuable insights.
- The counselor must look for the intensity of interest, high degree of involvement and commitment to know.
- The counselor should examine the task commitment, look for the one who has a "burning desire" to work in the creative/productive aspects of a particular field.
- A separation exists between the ones who

tinker with an interest, hobby or task and the one who becomes totally absorbed in the intricate aspects of the field.

* Among the most highly creative/productive adults is an always-present characteristic across all fields - - a tremendous commitment to one's field or problem, a driving absorption in his/her work.

* Gifted students have an intense, special interest in things often unrelated to the school program.

* These students exhibit an extreme impatience with repetition and routine.

* They sparkle with enthusiasm when interested and are open-minded to alternatives.

* They are avid readers, read in broad areas, and are well informed on many subjects.

* Gifted students are often high academic performers but not necessarily interested in all courses.

* Unusual interest, insight, and involvement in matters dealing with ethics, values, morals, and human problems are evident in these students.

As indicated earlier, there are no best indicators as to who is gifted - - regardless of their age. It is a well known fact that some recognized gifted persons did not emerge until later in life - - Grandma Moses, Winston Churchill, for example. It is unfortunate that thousands of gifted and potentially gifted students go through out schools, drop out and/or withdraw from society with unidentified talents and gifts. Few emerge "in spite" of our educational system - - we could use a better track record.

In concluding this section the key factors to look for, in identification of older gifted youth appear to be:

* an intense interest and involvement in a specific area or concern - - not necessarily related to school

* a dedicated or commited devotion of time and talent to a special interest - - often related to school

* imaginative insight in problem-solving situations, open-mindedness to alternatives and advanced level decision-making

* breadth in reading, interests and involvement in a variety of activities.

Screening and identification should rely on a high degree of subjectivity and one-to-one interaction. Checklists, rating scales and standardized test results are beneficial but often inadequate for older youth. Direct involvement with the gifted or potentially gifted older youth in an open and honest manner apparently is the best counseling advice to the counselor.

Working with the Handicapped

Even though our schools are strengthening their individualization processes to improve the learning potential of the handicapped, it is safe to say that the concentration of effort has been in allowing the handicapped to function in the general school program or society. How far beyond that can we expect to go?

The answer to this question and to other questions of special concern is expansion of our concept of providing for individual differerences. Depending upon the degree of complexity of the handicap, improved means of measuring the multi-dimensions of the student's ability must be found. It is ridiculous to assume that because a student is restricted to wheelchair mobility, he or she is also restricted in any of the areas of giftedness or limited in talent. There are sufficient success-models to prove this point.

In the counseling setting a few basic suggestions may prove to be beneficial:

* Consult with professionally qualified staff members who are working with the student and gain their expert assessment as to the nature and the limitations of the handicapped.

* Face the handicap openly and honestly with the student.

* Avoid making value judgments as to whether the handicapped person will be able to function or not to function in any

occupational cluster, training program or skill area.

* After reviewing the physical, emotional and cognitive aspects of the types of occupations the student is interested in pursuing, encourage the student to face the realities of entry skill training and placement in the occupation in light of his/her gifts and talents.

* Place more emphasis on potential outlets for their gifts and talents in a life-satisfying occupation than in searching for an area where they can function as handicapped persons.

* Make it clearly understood that any of the successful gifted and talented people "made it" on their abilities, talents, gifts, etc. and not "in spite of" their handicap.

There is one more concluding comment applying to the identification of gifted and talented persons who are handicapped. Whatever method of identification is used - - characteristic check-lists, rating scales, interviews, tests or observation - - it is essential that the handicapped person be allowed to participate. But, even more critical than this is that he/she be allowed the freedom to modify or adjust the procedures or at least be in on the decisions to modify or adjust them. The handicapped person, as a general rule, has developed means of compensating for their "presumed" lack of ability. Do not handicap them further by restricting their potential to succeed.

For example: In a test that requires that a student demonstrates his/her ability to manipulate a series of objects and arrange them in sequential order, it is highly probable that an orthopedically handicapped person has faced this type of activity and developed ways of lifting, shifting and placing such objects. A person not handicapped would probably pick up the object with one hand, transfer it to the other hand and then place the object where it belongs. It is recommended here that: (1) the handicapped be allowed to try the test, (2) that he/she be allowed to do it in their own way, and (3) if possible, remove the pressures of time and implications that there is a "right way."

This may not be a good example, but it does serve to illustrate the point that we should not prejudge the ability of the handicapped person. Allowed the freedom and opportunity to try is what most handicapped people want.

Working with Minority Groups and the Culturally Different

Most educators today are aware of the cultural bias and language barriers built into many of our standardized tests. Value systems as well as linguistic and cultural diversities are involved. There is sufficient evidence to support these facts and it serves no purpose to enlarge upon them or to document them in this manual. What is important is that the counselor be aware of them in the process of seeking the gifted among these disadvantaged students.

In designing plans for identifying the gifted in culturally different and minority populations, it should be remembered that observation of the student in his/her own environment - - the home, neighborhood, peer-group - - has proved to be one of the more effective approaches. Any gifted and talented student, at any time, would fail to qualify if we were to place him/her in competition within a different cultural setting where the language was unfamiliar and "rules of the game" were unknown.

The majority of studies on identification of the gifted and talented among the disadvantaged indicates that there are no significant differences in intellect, creativity, academic ability, leadership, etc. between the different races, national origins and culturals. The nature of the tests, the setting, and evaluation techniques must, however, be adjusted to give students equal opportunity for success.

It is important to reiterate that it is unsafe to make generalizations on the basis of groups. We should concentrate on the individual as a person. The role of the counselor is to understand as much as possible about the individual's background, interests, and aspirations. Within this context, every opportunity to identify the student's potential should be made.

SUGGESTED PROCLDURES IN SEARCH FOR THE "DISADVANTAGED GIFTED" (Taken from Ruth Martinson, 1974 - - THE IDENTIFICATION OF THE GIFTED AND TALENTED, pg. 120)

Each school should seek the cooperation and involve the active participation of its staff, faculty, and community resource personnel in developing guidelines and identification procedures. Here are suggested ways to begin this project:

* Present the project to the faculty. Experience seems to indicate that this presentation by a representative from the area counseling and psychological services staff can best be made to small groups, such as faculty meetings by conference periods.

* Prepare a local search sheet on which teachers may recommend possible candidates.

* Set up a school screening committee of about six members to help define "gifted potential" criteria relevant to the particular school and its environment. This committee will screen all candidates suggested by the faculty and make final recommendations for those who seem most qualified for intensive psychometric evaluation.

* Select a local school coordinator who can work with the principal, head counselor, and psychometrist to carry through both identification procedures and curricular programming for these young pupils.

* Suggest identification within one grade level only at this time. Seventh grade is recommended for the initial identification project.

* Request assistance from the Coordinator, Programs for the Gifted and Field Service Center Teacher Consultants in developing the new program.

* Explore resource possibilities the school may have which could be used in setting up "new" modified curricula for those identified. Physical facilities should be considered. However, teachers with special abilities, sensitivity and creativeness are essential for a successful program, and they must be carefully selected.

* Plan for specific innovative classes in the school's master schedule which will challenge these pupils' unique abilities and needs.

* Investigate the possibility of involving local college and university personnel with the project, specifically for assistance in development of new curricula and other participation.

Paul Torrence advances the thesis that the greatest strengths of disadvantaged and culturally different students are their creative skills and motivations and that these should be given priority considerations in developing their curricula and career plans.

Sex-Role Stereotyping

Another special concern that faces the guidance counselor in working with the gifted and talented, particularly in vocational counseling, is that of sex-role stereotyping. At present, there is an abundance of literature available dealing with the topic. Most of the attention is directed toward equality treatment for the female; however, the concern applies to counseling both boys and girls.

Perceptions of what jobs are for men and which ones belong to women still persist in the minds of most people. Recent breaks with tradition, societal pressures and legislation have made people conscious of the need of more open-mindedness, and some progress is noted in changing the mind-set. Again, much more needs to be done.

In the counseling of the gifted and talented students who have made up their minds to en-

ter an occupational ladder in any cluster the counselor should:

- be concerned more with the aspirations of the students than with what sex has historically dominated
- encourage the student to face the realities of stereotyping but to look beyond that and seek a life satisfying career
- avoid generalities about what others have done and/or been unable to do and concentrate on the gifted student's individual vocational preparation plans
- whenever possible "run interference" for the student when he/she encounters difficulties with stereotyping individuals - - peer group, staff members, adults
- encourage gifted students, especially girls, to become better intellectual and creative risk takers.

These suggestions are more concerned with preparation and placement than with identification. It would appear, however, that similar open-mindedness is needed in the counseling setting where interests and life-goals are being examined. The counselor should look for the characteristics of giftedness and not to whether the client is a boy or a girl.

The Rural/ Rural-Isolated Student

Probably the most disadvantaged youth in America is the gifted student in the small rural school which is isolated from enrichment opportunities available to the urban youth. The problem of identification may not be as difficult because of the close interaction which occurs within the small school and closely knit community. The concern is one of providing means for the gifted student to explore a wide variety of occupational fields.

In many cases the identified gifted child may be hundreds of miles from any large city. Vocational programs in his/her school may be limited to introductory courses. The teaching staff probably have other instructional assignments unrelated to the practical arts courses. Similarly the guidance counselor will undoubtedly have teaching or administrative duties which limit the time for one-to-one interaction.

No "sure-cure" suggestions can be made, but the counselor should strongly consider utilizing the professional services of state department personnel; resource persons from community colleges; colleges and universities; trained leaders in gifted education; and area or regional service units. The best advice that can be given is to get all the help available. Do not isolate the isolated any farther than they are. More help is available than most counselors realize.

Some Conclusions on the Identification Process

An abundance of information is available on identification processes and procedures. What has been assembled in this manual has been a synthesis of those which most directly apply to counseling the gifted and talented youth in light of vocational education.

Because of the limited distribution intended for this manual, more attention has been paid to suggesting identification techniques than to making a scholarly document. In many cases, the information provided has been paraphrased from the literature without giving proper footnote credits. The accompanying bibliography indicates the major sources of the information. In some cases, as in the section dealing with the identification of older youth, the information was gained from open-ended responses in questionnaires submitted to a panel of nine leading authorities in gifted education. These perceptions were made from their various backgrounds and experiences in this field.

It is sufficient to conclude that there is only a superficial coverage of the identification process herein for the purposes of awareness. In most instances, entire documents could have been compiled on each of the techniques treated. The counselor is encouraged to dig deeper into the available resources for greater understanding.

The authors would like to conclude this section by sounding one more note of caution. If the counselor is not careful, he/she may easily construct an abstract "circle of elites" in which only the easily identified gifted and

talented can enter. A better mental posture to take would be that of searching for gifts and talents in all students. No student should be ruled out as a potentially outstanding performer in the world of work in which he or she finds a life-satisfying career.

In planning for new programs of vocational education a more complete general education of the student will be a necessary foundation for further training. The kinds of work for which individuals prepare will continue to undergo changes both in nature and context. No education can be considered terminal. Technical knowledge and conceptual skills will become major ingredients of many occupations while technical knowledge combined with social skills will be required for many others.

Vocational education through the years has been responsive to the needs of society. Historically the apprenticeship system was sufficient to meet the demands of emerging industry. When geographic and occupational mobility of workers accelerated, and improved technology required a higher degree of trained skills, society turned to the schools.

According to Calhoun and Finch (1976), occupations created by new technology have several characteristics that differ from previous occupations:

* They usually involve fewer manual skills and more cognitive understanding.
* They often call for skills of higher order and for the use of more technical knowledge.
* Their performance usually requires a more complete general education.
* In many cases the worker needs more maturity in order to fill the job successfully.

As a result of these characteristics of newer occupations, versatility may be more valuable than a high degree of specialization.

Occupational choice will become more complex and will call for more assistance from the trained counselor regarding occupational requirements, opportunities and ways of entering these fields.

CHARACTERISTICS OF GIFTED AND TALENTED YOUTH

Historically, the listing of characteristics of the gifted and talented has been used to support and/or defend screening or identification theories which separate the "haves" from the "have nots." By the use of multiple methods students are identified as gifted or potentially gifted based upon the degree to which they measure up to any given number of listed characteristics. Once identified, the students are then given more definitive measures, such as individually administered tests and interviews to determine levels of interest, aptitude and ability. Programming for the enrichment of any defined or potential gift or talent then follows.

The Renzulli-Hartman Scale (1971) is widely used as an indentification instrument. It is a combination of dividing characteristics into categories or clusters - - learning, motivational, creativity and leadership - - and the application of a behavioral rating scale to each characteristic. This scaling technique has proved to be very effective in identifying the gifted through the junior high grades. For those who wish quantifiable data to support over-all judgment, this rating scale is very acceptable.

Because this manual is concerned with the vocational preparation of gifted and talented students, it is well to examine some of the recognized gifted characteristics in categories relevant to vocational education. At the risk of being labeled as an unsophisticated publication, the authors have arbitrarily placed characteristics compiled from many sources into nine specific categories. The categories were created to show an interactive relationship with occu-

pational concerns. These notes of caution are advanced:

- The characteristics have been arbitrarily placed without validating research.
- There has been no attempt made to prioritize any of the characteristics in a hierarchical order.
- The categories are placed in random order and not in any order of importance.
- Although the characteristics have been taken from well known listings, no attempt has been made to credit them to any author or research document.
- Each of the counseling hint statements is based upon the authors' knowledge, training, experience and literature search.
- The listing of characteristics in the assigned categories as well as the counseling hints are intended for use in this manual only.

ACADEMIC CHARACTERISTICS

Academically, gifted students are talented learners who excel in the school curriculum. They reflect their abilities in achievement tests, either standardized or teacher-made, in specific subjects or a variety of content areas. In many cases, to get high grades in school activities the talent lies in the ability to receive, store, retrieve and dispense information.

It is important for many students to maintain high academic records and score in the top percentile because of scholarships, awards, college placement and personal satisfaction. Test scores are good indicators. Other characteristics of academically able students are:

CHARACTERISTICS	WATCHWORDS AND CUES
• verbal proficiency which demonstrates an understanding of the breadth of knowledge	In vocational guidance, the counselor should work with the instructional staff in assessing the basic academic skills that will be of greatest value to the student in a career choice. Emphasis should be placed on instrution which will:
• avidness for reading with a high degree of comprehension	• teach to the highest cognitive level possible
• self-initiated study for in-depth understanding	• utilize all the gifted's thinking processes
• ability to transfer knowledge to new situations	• place emphasis on concepts and processes over content
• application of analysis and synthesis skills to problem-solving	• give the gifted a pre-disposition to discover knowledge for his/herself
• proficient use of evaluation skills	• capitalize on the unique interests and objectives of the gifted learner
• tendency to pursue learning with own direction	• utilize affective (aesthetic) indications of interest.
• intense curiosity to know "hows" and "whys"	
• a continuing questioning attitude	

AESTHETIC AND AFFECTIVE CHARACTERISTICS

Somewhat related to the philosophic concerns of axiology-values, ethics, morality and beauty - - gifted and talented students exhibit characteristics which are affective in nature. There is a close relationship between talent, creativity, giftedness and the affective or aesthetic characteristics. The following listing is presented in that context.

AESTHETIC CHARACTERISTICS

- displays concern with right and wrong, good and bad, people and behavior
- is intensely idealistic and optimistic about solutions to social, political and economic concerns
- has strong aesthetic experiences in viewing the phenomenons of nature, human interaction and the developmental process
- is sensitive to forms, colors, patterns and symbols which are aesthetically satisfying to other people
- possesses an excellent sense of humor
- is usually interested in art, music, dramatics, literature, poetry
- is both versatile and virtuous in interpersonal relations, is open and honest
- thinks clearly, recognizes implied relationships, comprehends meanings in art, literature, music, poetry
- displays sensitivity to beauty, is conscious of the aesthetic values as well as the practical
- becomes intensely committed to causes or concerns related to interests - - environment, conservation, equality, rights

WATCHWORDS AND CUES

There is a clear distinction between dedication and fad-following.

A clear understanding of the affective domain (Krathwold, et al, 1968) is essential for the counseling of the gifted in this area. Gifted students receive, respond and become committed to act very rapidly.

Most aesthetic qualities have very little pragmatic or practical value and it is well to avoid causing the gifted to defend affective feelings in practical terms. (Example: What is it good for? Are you going to sell it? What is it supposed to accomplish? Why did you spend so much time on it?)

Allow the gifted student the pleasure of being sensitive, being able to dream, to draw abstract concepts, etc., without pressure of purpose or practical reasoning.

It is important to listen to the gifted student describe, relate or share aesthetic experiences. The counselor should be cautious of "swapping tale for tale," trying to do one better or make value judgments. In most instances, the sharing of the affective experience is sufficient - - to care enough to listen is enough.

In matters of morals, ethics, religion a sound background in value clarification is extremely helpful.

CREATIVE AND PRODUCTIVE CHARACTERISTICS

As is true with giftedness in general, much empirical investigation concerning creativity has been accumulated. Research data from tests, case studies and observation have given clear indications that there are some rather common characteristics among creative persons:

CREATIVE AND PRODUCTIVE CHARACTERISTICS

- displays a high degree of curiosity about many things
- recognizes problems quickly, is flexible in his/her thinking, seeks solutions by striking out in new directions
- is not only a thinker, but also a producer of original ideas, products and methods
- finds new uses for old objects and materials, seeks value in things that are discarded by others
- possesses an intense desire to solve problems that baffle others, with endless quest for new challenges and solutions
- is a high risk-taker, adventurous, speculative
- is imaginative, fantasizes successful means
- is intelligent (broadly defined), has strong theoretical and aesthetic interests
- has a strong sense of destiny, self confident
- is intuitive, responds quickly to sense stimulation, openness to experience
- works well alone, is independent (in thought and action), often seen as a "loner"

WATCHWORDS AND CUES

All people possess some or many of the characteristics related to creative and productive thinkers, the concern is one of intensity.

Creative persons are intelligent, but most do not get hung-up on grades, academic success or school success. Creative giftedness is not to be equated with verbal intelligence.

Creative intelligence is related more to divergent thinking whereas verbal intelligence is more closely aligned with convergent thinking.

Be conscious of the difference between the creative process and the creative product. People are quick to praise the tangible productions (machine, ideas, things), but tend to stifle the process which requires time, freedom and encouragement.

Creative students may find it difficult to get into accepted behavior patterns.

Vocational educators should be aware that the creatively talented student may wish to pursue one subject in depth.

DECISION-MAKING CHARACTERISTICS

Few writers actually cite decision-making skills as characteristics of the gifted and talented. There are, however, many traits which can be related to decision-making which is a fundamental process in nearly all occupations. The fact that various forms of talent tend to go together has already been mentioned and thus gives credibility to grouping the following characteristics under this category:

CHARACTERISTICS

- exhibits an intense power of critical thinking, skepticism and evaluative testing
- shows superior judgment in evaluating relationship between and among data and things
- has a keen ability to reason things out and sees consequences of courses of action
- has the ability to generate alternatives rapidly
- has the ability to view many alternatives, suspend judgment until relevant information has been gathered from many sources
- has an ability to use graphics involving symbols which lead to sequential decision-making processes
- displays an adeptness at applying the "scientific method" in problem-solving
- has a keen ability to predict outcomes or foresee difficulties which will require future adjustments and new solutions
- recalls and applies information which has been heard or read

WATCHWORDS AND CUES

In the process of trying to answer the basic question of seeking a life-satisfying career, decision-making skills are of extreme importance in the counseling setting. By utilizing inquiry techniques the counselor can stimulate the gifted to apply these skills in choosing a vocation.

The counselor can provide opportunities for the student to apply decision-making skills to present planning.

LEADERSHIP CHARACTERISTICS

Identification of leadership is based upon giftedness characteristics which set forth a person who has an influence on others. This person may rise from the group by being chosen or by the exercise of authority. Some of the characteristics of leadership are:

CHARACTERISTIC

- ability to help a group reach its goals, improve its relationships, achieve prominence
- ability to assert power of influence on decision-making, opinions, thoughts and action
- ability to organize time, work and people
- tendency to dominate others, generally directing the activity
- ability to carry out responsibility well, tending to do as well as direct
- ability in planning, facilitating and structuring situations
- ability to express views well and influence others
- ability to listen to the views of others, synthesize ideas and communicate them to the group
- awareness of group goals, avoiding aimless and pointless dialogue
- ability to conceptualize the "big picture"
- ability to instill confidence, with an innate sense of justice

WATCHWORDS AND CUES

Leadership can be a positive or negative force in the school setting. Involve the gifted leaders in the setting of goals and objectives. If involved in the decision-making, there is a greater potential for success.

The magnitude of influence which the gifted leaders have extends beyond the limits of the school. It extends to the playground, neighborhood and community. In many cases, the gifted leaders are actively involved in state, regional and national organizations, movements and causes.

Be conscious of the multi-talent bank within self from which the leader draws his/her resources. These will be essential in vocational and occupational success.

Be concerned about promoting democratic values into leadership. With leadership goes the responsibility for preserving the rights of others and to improve the quality of living for all.

SOCIAL CHARACTERISTICS

Generalizations about social characteristics should be viewed in light of attitudes toward self and others. Depending upon the areas of giftedness, interests and talents the social characteristics may be seen as:

TOWARD SELF AND OTHERS

TOWARD SELF:

- independent, individualistic, self-sufficient
- self-critical, self evaluative, striving for perfection, satisfied with own speed and production
- non-conforming, accepting disorder, not concerned about what others think or say
- independent in work and study, prefering to work alone, needing freedom of movement and action, self-reliant

TOWARDS OTHERS:

- possesses few close friends
- associates with older people and deals with problems at an adult level
- is friendly, outgoing, open
- is selective in social activities, basically a non-joiner
- displays humor, playfulness, and relaxed appearance when not in a creative or productive process
- is sensitive to, empathetic toward and intensely aware of the needs of individuals and groups
- alternately needs and avoids social contact

WATCHWORDS AND CUES

It is difficult to predict when to work with the gifted and talented student and when to leave him/her alone.

No generalizations about the relationships between self and others can be made about gifted/talented students, as each student is highly unique.

Whenever possible, scheduling of counseling sessions should be avoided and an open-door policy should be maintained.

The greatest task that faces the counselor is to teach the student to live with his/her gift or talent in society and that he/she should not become an island unto self.

PHYSICAL AND EMOTIONAL CHARACTERISTICS

Among the most common myths that prevail are those which stereotype gifted and talented persons as weak, emotionally unstable and under-developed beings. To the contrary there are many research studies which show that giftedness is often characterized by the following:

CHARACTERISTICS

- are well coordinated and excel in athletic activities
- possess mechanical skills which require high degrees of manipulative and special ability
- perceive visual patterns, details and minute differerences
- display a positive self-image and are self-confident
- have high energy levels, are alert and eager to participate
- expend seemingly limitless energy, spend periods of intense voluntary effort preceding invention
- often wish to work alone and are sufficient unto themselves
- display emotional stability under stress and pressure situations
- require less sleep and restore energy levels quickly

WATCHWORDS AND CUES

There are some negative values in these characteristics of which the parent, counselor and teachers should be aware. It is difficult to generalize; however, there is a strong tendency among the gifted to "burn themselves out". The gifted should be made conscious of the consequence of prolonged drain on the physical and emotional aspects of intense activity.

Counselors need to make teachers cognizant of the potential energy drain that can be imposed on the student by quantity of requirements and assignments.

Allowances for time and freedom to work are important.

INTELLECTUAL CHARACTERISTICS

Any search for characteristics common to giftedness would reveal the manisfestation of high intellectual ability. There are some researchers who go so far as to say that intelligence, or intellectual ability, is basic to all other talents. Presumably, high intellectual ability accompanies a wide range of talents. There is little argument that any highly talented person is well above average in intelligence.

In setting forth "A Counselor's Policy on Giftedness - - The Role of Tests in Selecting the Gifted," Martinson (1973) states " . . . for practical reasons, keep separate the search for the intellectually gifted . . . " Her point is that intellectual ability is one indicator of giftedness and not the sole measure. Too many gifted programs have failed to gain public or school support because of an over-emphasis of "I.Q. Scores." Regardless of the amount of evidence favoring the use of high intelligence as a screening factor, it is strongly recommended that it be considered as **one among many** in the identification process. In addition to standardized measures of intelligence a compillation of characteristics which indicate superior intellectual ability would include:

CHARACTERISTICS

- the use of a large vocabulary, accurate use of words with a comprehension of their meaning
- rapid insight into cause-effect relationships
- keen power of observation and a willingness to examine the unusual
- ability to conceptualize and synthesize
- preference for complex ideas, systems and working with abstractions
- eagerness for problem situations which challenge the ability to reason
- inquisitiveness about "why's" instead of "what's"
- tendency to ask provocative questions and to be intellectually curious
- preference for complex games such as chess, use of numbers, puzzles
- keen alertness to significant data
- intense power of concentration accompanied by long attention span

WATCHWORDS AND CUES

The guidance counselor should consider the characteristics listed in the contest of such terms as outstanding, superior, acute and highly developed. A thorough understanding of Guilford's (1967) "Construct of the Intellect" cannot be minimized.

The counselor should encourage the student to avail himself/herself of opportunities to utilize his/her intellectual skills.

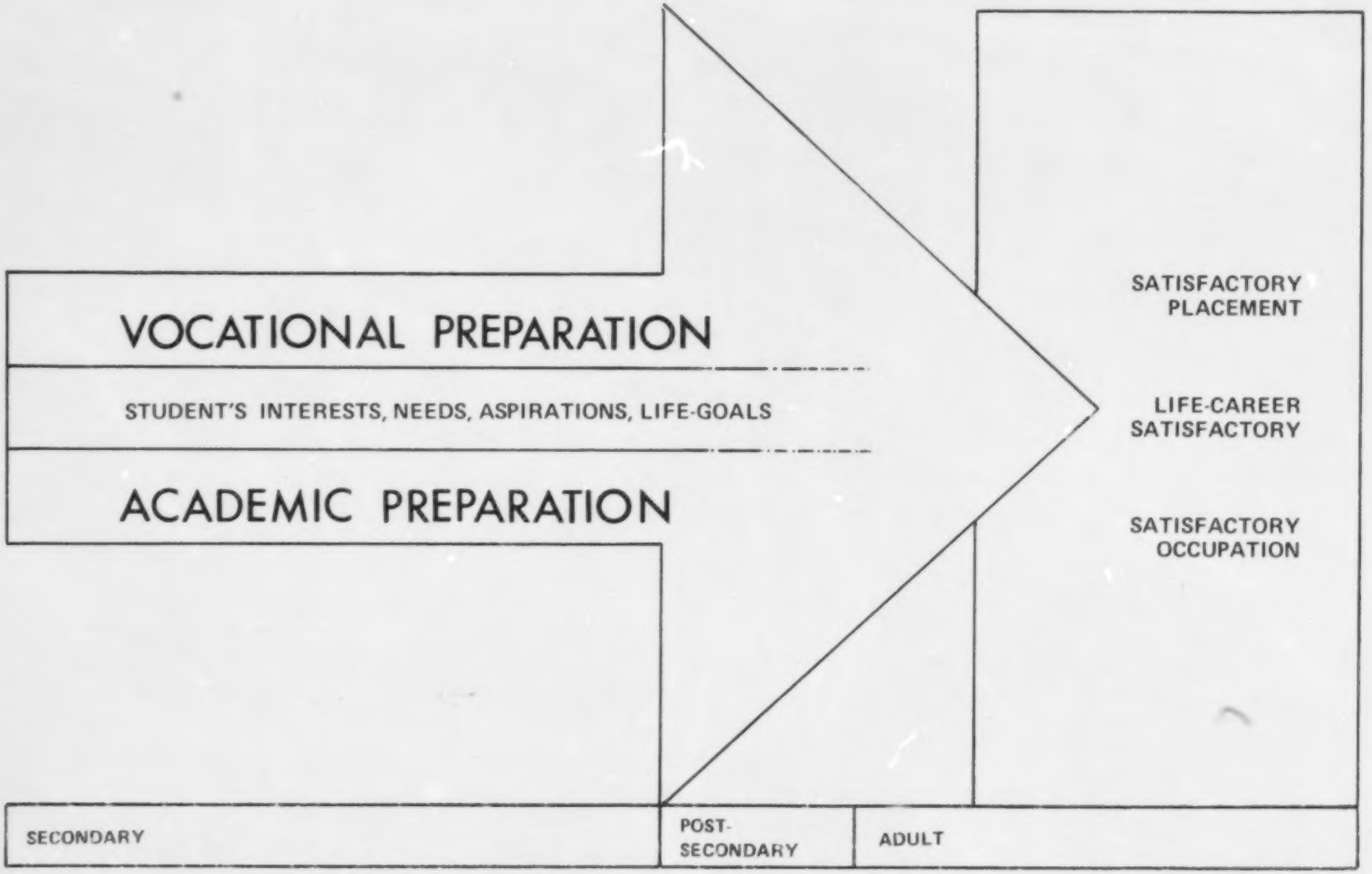
The counselor should assist in providing a school climate in which the student can utilize these intellectual characteristics via consultation activities in program planning and development.

WORK PATTERN CHARACTERISTICS

In the absence of concrete test scores and achievement data, observation of the student's work patterns will yield identifying characteristics which may indicate giftedness. Many writers in gifted education are currently emphasizing identification through experience programs. Until recently most of the emphasis was placed on identifying the gifted and then programming their experiences. Some of the characteristics to watch for in work patterns include:

CHARACTERISTICS	WATCHWORD AND CUES
• has extremely long attention spans and the ability to pursue an activity in which he/she is interested for extra long periods of time • becomes absorbed and truly involved in certain activities or problems • displays tremendous power of concentration • is persistent, resourceful and self-directed • delves into interests beyond the usual limitations • is easily bored with routine and drill • needs little external motivation to follow through in work which initially excites him/her • possesses an ability to organize the work procedure, budgeting time and resources • has liking for structure but can tolerate disorder and ambiguity • is critical of the quality of his/her own effort and production • disposes (absorbs) quickly of preliminary, fundamental and/or elementary knowledges, skill's and processes	Vocational educators should be aware of these characteristics and make wise use of them in providing individualized instruction. Allowances for time and freedom to work are important. An attempt should be made to emphasize the multiple training options and to avoid early specialization.

LIFE-CAREER DEVELOPMENT



EXPERIENCE PROVIDED BY THE GUIDANCE COUNSELOR

To implement a guidance program it is essential to involve the gifted and talented student directly in examining job opportunities, in reviewing the alternatives open to him/her, and in decision-making. The most complex decisions are those of trying to match the bank of student talent with the world of occupational opportunity.

Examining the 15 Occupational Clusters

The United States Office of Education has attempted to classify the world of work into 15 occupational clusters. This was accomplished through the career education movement which classified the more than 20,000 job titles identified by the Department of Labor in the DICTIONARY OF OCCUPATIONAL TITLES (DOT). The main purpose of this activity was to bring a greater emphasis on the real world of work in the educational setting.

By utilizing the clustering technique it has become possible to identify and group occupations that possess some common base of knowledge and/or skills which can be translated into educational programs. The purpose of viewing the clusters in this manual is to identify potentially life-satisfying occupations for gifted and talented students through vocational preparation programs.

In examining the 15 occupational clusters it should be stressed that there are no definitive answers as to what constitutes a life-satisfying job. But, it is clear that the best approach to finding that job is to find which one (or more) of the occupational clusters is aligned with one's unique interests, talents, goals and aspirations. A carefully planned occupational and educational training program spread out over the years would be essential elements in gaining job satisfaction. Here are some suggested counseling pointers:

* The key to gaining a life-satisfying job is to match what the individual likes to do with what he/she is interested in.

* There is a certain amount of risk-taking involved in "getting ahead." But, risk-taking should be based on planned decision-making rather than relying on impulse.

* Success stories are full of cliches such as, "getting the breaks," "being there at the right time," "pulling strings," and "waiting for opportunity to knock." No one will deny these; however, they are poor substitutes for exploration, planning and preparation.

* Life-satisfaction comes in part from having a satisfying job in one's chosen occupational field. A planned exploration of the opportunities available in several clusters is a good beginning.

* Other people can help, counsel, suggest and advise, but it should be up to the student to decide what he/she wants to do with his/her life in the world of work.

The 15 Occupational Clusters are as follows:

- - Agriculture
- - Business and Office
- - Communications and Media
- - Construction
- - Fine Arts and Humanities
- - Home Economics
- - Health
- - Hospitality and Recreation
- - Manufacturing

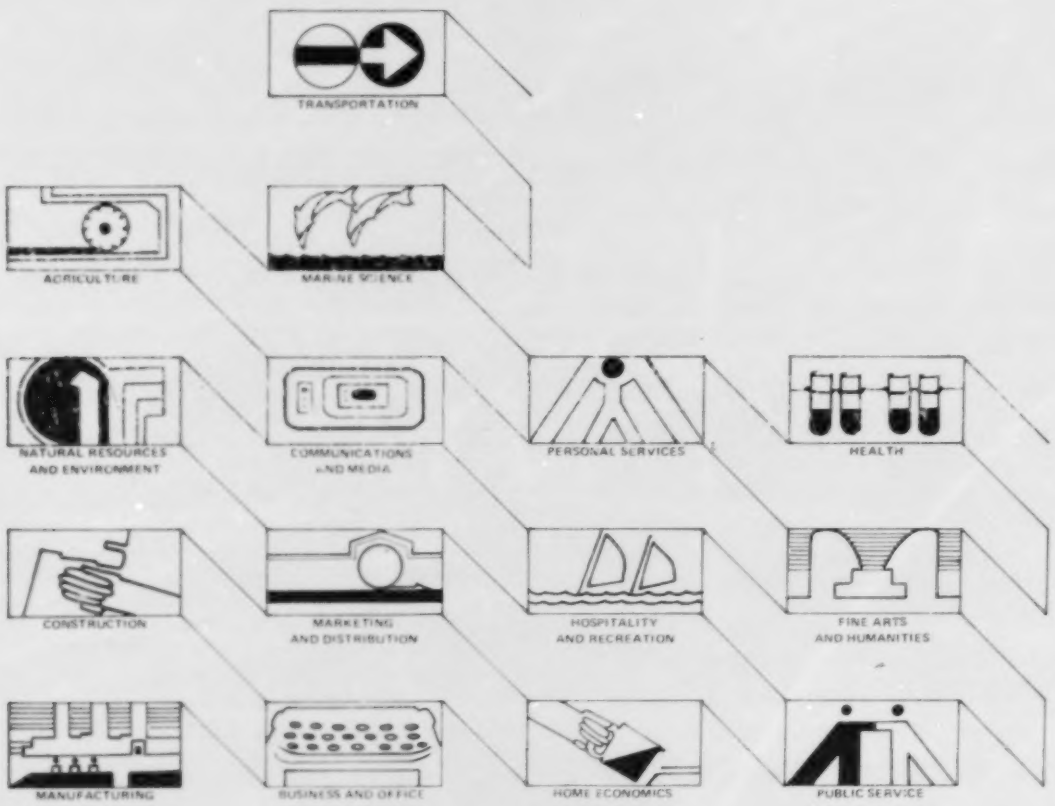
- - Marine Science
- - Marketing and Distribution
- - Natural Resources and Environment
- - Personal Services
- - Public Services
- - Transportation

Vocational education, although it encompasses preparations for occupations within most of the career clusters, is organized for administration and supervision with a different clustering. The typical categories (service areas) utilized in vocational education (USOE Publication, OE-80061, Vocational Education and Occupations) are:

- - Agriculture (01.0000)
- - Business and Office Occupations (14.0000)
- - Distributive Education (04.0000)
- - Health Occupations (07.0000)
- - Home Economics (09.0000)
- - Technical Education (16.0000)
- - Trade and Industrial Education (17.0000)

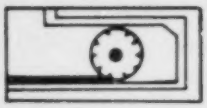
Although the administrative categories (service areas) have remained static, the programs within vocational education have been dynamic. Today, vocational education places emphasis upon meeting the needs of the high school student, the post-secondary student, and the adult with special emphasis upon the disadvantaged and handicapped. Meeting the needs of the gifted and talented student, as a group, has received only minimal attention in the past.

THE FIFTEEN OCCUPATIONAL CLUSTERS



An Expanded View of the Clusters

Each of the occupational clusters should be examined in terms of the gifted student's interest as well as a career outlet. The following section provides more detailed information on the clusters for the purposes of counseling students toward careers through vocational education pathways. Although the occupations listed are thought of as terminal jobs at the exit level, each should be viewed as a phase in the students search for a life-satisfying career.



AGRICULTURE (INCLUDING AGRI-BUSINESS)

Vocational programs in agriculture and agri-business emphasize the business, scientific and technological side of food production - the world's largest industry.

Specialized programs in production are dependent upon interrelated support from conservation, preservation and use of renewable natural resources.

INTERESTS

Agricultural resource

Production

Forester aide

OCCUPATIONS

Plant Technician
Soil Science Technician
Animal-Husbandry Technician
Food Processing Technician

Farm or Ranch Manager

Regulatory Inspector

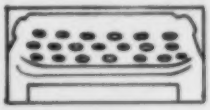
POTENTIAL

Although farm employment will decrease, the need for better trained workers will increase as farming becomes more sophisticated. Off-farm agri-business labor forces will increase as farming continues to revolutionize.

WATCHWORDS AND CUES

Opportunities are available in rural and urban surroundings, in on-farm and off-farm settings, and with private and government agencies.

Management is a key factor.



BUSINESS AND OFFICE

Students interested in the business world will find a varied number of career opportunities, all directed toward the business of America - - business, which has its roots in our free enterprise system.

INTERESTS

Accounting

Computers

Finances

Secretarial

OCCUPATIONS

Accountant
Business Manager

Computer Programmer
Data Processing Technician
Systems Analyst

Legal Assistant
Insurance Agent
Real-Estate Broker

Clerical Workers
Court and Reference
Reporter

POTENTIAL

This cluster will increase @ 30% by 1985. Clerical workers are expected to be the fastest growing group of workers in the next decade, due to the increased paperwork that will accompany the business world expansion.

WATCHWORDS AND CUES

These jobs require structure and accuracy. The worker must be able to work with people as well as to work alone. Some jobs like real-estate and accounting may require licenses.

More training and retraining in the use of business machines and equipment should be considered in planning.

COMMUNICATIONS AND MEDIA

As the world moves toward the 21st Century, the focus will be on living and working together in cooperation and harmony, much of which will be brought about through the media of communication. Communication is the necessary ingredient in our day-to-day life and can be thought of as the transfer of information by means of telecommunication or graphics.

INTERESTS

Journalism

Radio, TV and motion picture

Telephone & telegraph

OCCUPATIONS

Interpreter
Reporter
Technical Writer
Graphic Artist

Audio-Visual Technician
Radio Broadcaster
Lighting Technician
Telecaster Technician
Photographer
Designer
Overseas Operator
Computer Technician

POTENTIAL

Many potential job opportunities will be available in satellite and laser communication, which is becoming a major area in the field of communication.

WATCHWORDS AND CUES

Creativity, imagination, artistry and patience are necessities.

Individual ability is a key factor in advancement.

Irregular hours are more typical than a 40 hour week.

Training demands will require updating of skills periodically as the industry advances.

CONSTRUCTION

Business, industry and homeowners all depend upon construction, whether for the buildings in which they reside or the highways and bridges which allow them mobility. Because lives depend on it, construction work must be accurate and precise in every task.

INTERESTS

Structural work

Finishing work

Mechanical work

OCCUPATIONS

Architectural & Drafting Technician
Carpenter
Ornamental Iron Worker

Marble Setters
Painter and Decorator
Landscaper

Electrician
Electrical Technician

POTENTIAL

Employment is expected to increase 50% or more in all areas through the mid 1980's. Demand for more and better housing, discovery of new building materials and improved heating and cooling will provide numerous outlets for job opportunities.

WATCHWORDS AND CUES

Most jobs require an apprenticeship and union acceptance is usually necessary. Promotion generally depends on the individual. Accuracy and precision are required. Interstate regulations on licenses must be taken into consideration. Avocational outlets as well as vocational placement should be considered.

FINE ARTS AND HUMANITIES

Because it is perceived by the public as primarily an outlet for the professional performers, artists, writers and humanists, this occupational cluster has been overlooked by many as a vocational outlet. However, there are many opportunities for students interested in blending the arts and humanities with technology.

INTERESTS

Visual arts

Performing arts

Others

OCCUPATIONS

Artist - - Painter, Sculptor
Graphic Artist

Artist - - Actor/Actress
Musician, Dancer
Choreographer
Director
Set Designer
Costumer

Writer
Architectural Technician
Museum Worker

POTENTIAL

As our society moves toward more leisure time, we will tend to look to this cluster for entertainment. Good artists will always be in demand.

WATCHWORDS AND CUES

Creativity, artistic ability, ability to communicate ideas and good judgment are prerequisites for entry into this cluster.

Individual ability is extremely important.

A vocational outlet should be considered as well as job placement.

HEALTH

Caring for the ill and providing health services must be the concern of any student looking to this cluster for a life career. Good health depends not only on the individuals working in this area, but also on their geographic distribution.

INTERESTS

Administration

Technicians

Nursing

OCCUPATIONS

Dental
Medical
Ophthalmic
Veterinary
Laboratory Technician

Registered Nurse
L.P. Nurse
Nursing Aide

POTENTIAL

The increased concern for health services will contribute to the growth of occupations in this cluster.

WATCHWORDS AND CUES

Each individual must be concerned about people.

Good health is essential for employment.

One must possess a calm personality and be able to cope with emergencies.

Paraprofessional training beyond the preparatory programs should be considered.

HOME ECONOMICS (including Consumer, and Homemaking Education)

Defined as both an art and a science, home economics identifies vocation in five main areas: nutrition, clothing, budgeting, home furnishing, and child care. The focus here is on the welfare of the family.

INTERESTS

Nutrition

Clothing

Budgeting

Home furnishings

Child care

OCCUPATIONS

Dietitian
Chef
Food Manager

Fashion Designer

Home Economics Consumer Technician

Interior Decorator
Furniture Designer

Child-care Assistant

POTENTIAL

Due to population growth and expansion of human services, employment outlook seems positive.

WATCHWORDS AND CUES

The individual should be responsive to social conditions and needs.

Understanding human development and human relationships is essential.

Knowledge of form and composition is necessary.

HOSPITALITY AND RECREATION

Hospitality and recreation occupations are directly related to providing both enjoyable and beneficial use of leisure time. Included in this cluster are all occupations relating to tourism.

INTEREST

Tourism

Recreational

OCCUPATIONS

Travel Agent
Tour Director
Motel Management

Recreational Director
Professional Athlete
Hunting and Fishing Guide

POTENTIAL

Jobs will increase in this area, particularly in those oriented toward tourism. Earlier retirement and increased emphasis on leisure will stimulate growth in this cluster.

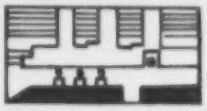
WATCHWORDS AND CUES

These are people-oriented occupations.

Knowledge of business management is necessary.

Some jobs require specific skills and training.

Excellent opportunities exist in combining recreational interests and job placement.



MANUFACTURING

A major component of America's economy is manufacturing. Practically everything we use is a product of manufacturing. Jobs in this cluster are many and varied and often provide easy entries into other areas. Many supporting crafts are listed under Construction.

INTERESTS	OCCUPATIONS
Management	Vice President Analyst Product Designer
Technician	Drafter Electronics Technician
Craftsworker	Tool & Die Maker Tool Designer Ceramics Technician
Skilled worker	Pattern Maker Electrician
Semi-skilled worker	Electroplater Equipment Repairman

POTENTIAL

By the year 1980 well over twenty million will be employed in manufacturing. This will be the greatest number of workers in any area.

Caution: As jobs change or are phased out, workers may find it necessary to move into similarly related areas.

WATCHWORDS AND CUES

Because of the variety of jobs, one must carefully look to his/her interests and desired working conditions in making a choice of occupations.

Most are union - - many require apprenticeship.

Emphasis should be placed on multiple training options.

MARKETING AND DISTRIBUTION

Marketing and distribution directs the flow of goods and services from producer to consumer. One of the major problems in the world today is getting food in sufficient quantities to areas where it is most needed.

INTERESTS

Management

Research

Purchasing

Sales promotion

Selling

Distribution

OCCUPATIONS

Store Owner/Manager
Traffic Manager

Marketing Research Assistant

Buyer
Seller

Recruiter
Product Designer

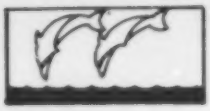
Sales Person
Exporter
Inspector
Traffic Clerk

POTENTIAL

Students will be able to obtain immediate entry and rapid advancement in the industry of their choice. Upward mobility potentials are limited only by aspirations and commitment.

WATCHWORDS AND CUES

The individual must be able to get along with people. Communication skills are a necessity. Opportunities for advancement are based upon experience or expertise. A high degree of employability and promotability exists.



MARINE SCIENCE

Occupations in this group deal primarily with the discovery, cultivation and harvesting of food and minerals from the sea.

INTERESTS

Research

Chemical & mineral extraction

Off-shore drilling

Fishing

OCCUPATIONS

Hydrologic Technician

Metallurgical Technician

Surveyor
Geologic Technician

Diver
Fish Culturist
Marine Technician

POTENTIAL

This cluster will provide a potential of opportunities as the need for food and minerals increase. The careers in this field promise to be both personally and financially rewarding.

WATCHWORDS AND CUES

Love of outdoors is necessary. Good Physical Condition is essential. The individual should exhibit adaptibility to various environments. Keen curiosity about nature would be beneficial. Specific scientific knowledge is required. Mechanical aptitude is essential. There will be a vital demand for supporting technology as oceanic and marine sciences expands.

NATURAL RESOURCES AND ENVIRONMENT

The concerns in this cluster are with preservation of natural resources and environmental control.

INTERESTS

Pollution

Disease prevention

Environmental planner

Resource Control

OCCUPATIONS

Noise Control Technician
Safety Inspector

Water Quality Control Technician
Food & Drug Inspector

Land-Use Technician
Environmental Health Technician

. orestry Technician
Wild Life Aide

POTENTIAL

Job opportunities will increase in proportion to national concern.

WATCHWORDS AND CUES

Interest in environment is essential. The individual should possess specialized knowledge or training. Flexibility is necessary. The student must enjoy working with people. Most entry jobs require working under a supervisor. Many multiple training options and related technologies exist. A high degree of lateral entrance from other occupational training exists.

PERSONAL SERVICE

People helping people is an appropriate motto for this cluster. Service, not product, is the key item.

INTERESTS

Domestic

Personal

OCCUPATIONS

Executive Housekeeper
Personal Companion

Hairstylist
Funeral Director

POTENTIAL

Personal Services are expected to increase as a result of rising incomes and greater interest in personal and family comfort.

WATCHWORDS AND CUES

Patience, tact, neatness and good disposition are important assets.

Good health and physical stamina are essential. The student must enjoy working with people.

The individual should be able to work on one-to-one basis. A desire to please the people one works for is important.

PUBLIC SERVICE

This cluster involves a grouping of occupations concerned with providing services to the public. The majority of public service workers are employed by government--local, state or federal.

INTERESTS

Administration

Protective

Education

Social services

OCCUPATIONS

Bank Officer
Urban Planning Assistant

Law Enforcement Officer
Military Person

Teacher Aide
Library Technician

Correctional Specialist
Social Service Aide

POTENTIAL

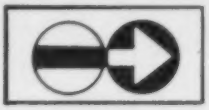
It is likely that development in this cluster will continue to grow as the public's need for more services increases, particularly those services dependent upon government funding.

WATCHWORDS AND CUES

The individual must have a commitment to both society and to job. An appreciation of structure and organization is essential.

Opportunities to effect change are high.

There is a security of being part of a larger organization.



TRANSPORTATION

People and things must be able to move from one place to another. America is on the move.

INTEREST	OCCUPATIONS
Highway	Drivers Dispatcher Supervisor
Railroad	Locomotive Engineer Telegrapher
Airway	Pilot Air Traffic Controller Aerospace Technician
Water	Sea Captain Merchant Marine
Pipe Line	Designer Safety Inspector

POTENTIAL

Expansion is anticipated in air transportation and in aerospace; the pipeline industry will continue to need people in varying occupations. The other areas are not expected to show rapid increase, but there will be a need for replacement.

WATCHWORDS AND CUES

Mechanical ability is imperative.

Organizational ability is important.

Ability to assume individual responsibility (for safety of others, self, etc.) is necessary.

Most jobs are union controlled.

Demands for mobility are expected.

Attention focused on the occupational clusters here has been in relation to the counselor's work with the student. It is anticipated that more importance will probably be given to jobs and occupational titles, than should be. The main thrust of the counselor-student interaction should be directed toward the cluster itself, for it is within this arena in which the student should seek his/her life-satisfying career. The counselor may:

- provide the student with information or information sources about the occupational clusters.
- cause the student to view each cluster in light of his/her own unique needs, interests, and life goals.
- seek to identify common skills that relate to the student's interests and abilities.
- explore the possibilities of lateral transfer of skills in selected clusters.
- cause the student to follow through a life-satisfying career in each of the clusters where an interest has been expressed.
- emphasize the importance of occupational/educational decision-making.
- share the decision-making role with other staff members, particularly the vocational educators and the teacher-coordinators.

Once the "right" occupational cluster has been identified it will be possible to talk about types of work, interests and aspirations. This will then allow for the expansion of occupational information and the incorporation of dialogue concerning educational and occupational ladders for the gifted student.

Use of Information Systems

The use of mechanical and electronic equipment to store and retrieve occupational information has grown rapidly in recent years. Most of the current uses of this equipment fall into three categories:

- job banks
- view decks
- interactive computers

Job banks are computers that have been created and maintained by the U.S. Employment Services and its affiliated States services, by schools and college placement offices and by private employment agencies. Brief information on unfilled job orders from any number of employers, received by any number of placement officers and agencies in any number of locations, can be fed into a single computerized job bank; and a complete computer printout can be produced each morning at as many terminals as desired. The input may also include data on any number of job applicants. A placement interviewer, a counselor, or a job applicant may have instant access to all job orders.

View decks are sets of computer punch cards. In an aperture in each card is a small piece of microfilm which carries a description of one occupation. Selected cards may be placed in a microfilm reader and read at once or in a reader-printer from which the user may get a full sized printed copy of the microfilmed material. Some later decks include microfilm and cassettes. View decks have been created and maintained by state, county and city school systems to serve both school and college students. Information on local employment and training opportunities have usually been included.

Interactive computerized career information and guidance services have been created and maintained by schools, and other agencies, operating individually or together, and by commercial organizations who sell their products and services to such institutions and organizations. Equipment may be purchased and a computerized service developed locally; or the service can be purchased and delivered via telephone lines, from an organization which has developed a centralized computer system to serve a wide area.

Loughary (1970) explains at least three ways in which computers can be used in guidance. In the first application, computers serve as data-processing tools for counselors by storing pupil data and subsequently reporting it in various ways. Second, computers can be used as substitutes for some counselor functions that go beyond simple information processing such as reference systems which often permit the user and the computer to engage in a dialogue.

Examples are the matching of students and schools, or the matching of workers and jobs. In the third application, the machine is viewed as a substitute counselor, at least for some counseling functions which involve systematic, consistent, and selective use of a limited number of simple skills.

In terms of the first two categories, Miller (1970, pp. 215-216) has divided information systems into two classes:

- Educational development and planning systems are student information systems containing test scores, grades, personal characteristics, etc., and are usually state-based.
- Locally oriented occupational information systems are designed to communicate general and local occupational information to students for use in vocational planning and placement.
- Information systems to facilitate vocational decision making emphasize providing the student about self, educational opportunities, and the world of work, and also helping him/her develop skills in effective vocational decision-making.
- Information systems for staff training and program development contain information about current educational programs, practices, and research.

The development of technology has not taken place without some difficulty. The cost is great although efforts at time sharing and the use of mini-computers has helped. In addition to cost factors, Waly (1970) has suggested that technology forces the student to come to grips with his/her values and goals which sometimes create conflict. Also, Waly points out the difficulties related to confidentiality and depersonalization.

In spite of these drawbacks, technology is a powerful and time-saving tool which must be used by professional, ethically minded people who are cognizant of the dangers and willing to plan and utilize the media with a strong "people-orientation."

Technology may indeed have a special appeal for the gifted and talented student who enjoys having input; the possibility for experimentation, and self-initiated learning is challenging.

Though technology may provide useful tools which may be appealing to the gifted/talented student, it is important to remember that the student also benefits from having interaction with a counselor with whom he/she can relate to discuss new discoveries, make decisions and clarify values.

WHERE DO WE GO FROM HERE?

In concluding the Guidance Counselor Manual the authors realize that much has been left unsaid and undone. The Vocational Preparation of Gifted and Talented Student Project is a beginning. Each State team member must translate his/her future role in the context of the theme and within his/her professional activities. For the Guidance Counselor this means an expanding of the concern for the individual--that unique individual we are calling the gifted student.

We who have labored in trying to synthesize Vocational Education and Gifted Education with the role of the Guidance Counselor have assumed that the competence level of our audience was not in question. This entire manual has been directed toward persons who are trained, experienced and capable of translating the information presented into action.

The only remaining concern is that of commitment. If the project, its follow-up activities and the basic theme are to be translated into action, the counselors will have to make that commitment.

As if often true of the beginning of any program, project or movement, the initial leaders

become obscure as others fulfill the activities. It is better that we remain obscure in the future than to allow the valuable gifts and talents of our outstanding students to remain obscure. Hopefully, the future will allow us all the privilege of catching a glimpse of the successes of our endeavors; that through our efforts the gifted and talented students will be counseled in such a manner that they view Vocational Education as a positive force in the development of their search for self-realization and life-satisfaction.

A quote from Buckminster Fuller seems appropriate for the closing statement. "... You do not belong to you. You belong to the Universe. The significance of you will remain forever obscure to you, but you may assume you are fulfilling your significance if you apply yourself to converting all your experiences to the highest advantage to others."

SPECIAL CONTRIBUTION RECOGNITIONS

In preparation of the Manual for Guidance Counselors it was deemed essential that a direct contact be made with nationally recognized authorities because of the unique nature of the dimensions of the project. Several persons from across the nation responded by personal interviews, mail and/or telephone conversations from the areas of Gifted Education, Guidance/Counseling and Vocational Education. Their collective input has been valuable in the preparation of all of the curricular materials. A listing of their names and positions is cited here for the purposes of recognizing their valuable assistance.

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